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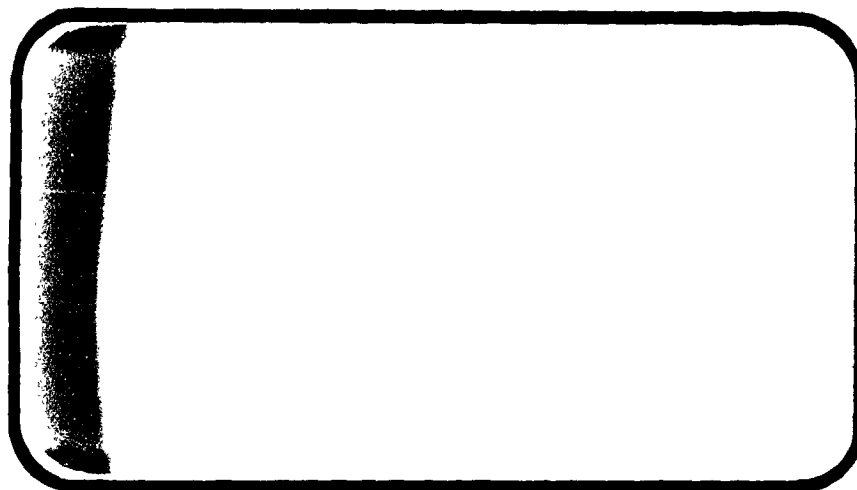
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(NASA-CR-134403) AERODYNAMIC RESULTS OF
A SUPPORT SYSTEM INTERFERENCE EFFECTS
TEST CONDUCTED AT NASA/LARC UPWI USING
AN (.015-SCALE MODEL OF THE (Chrysler
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SPACE SHUTTLE

AEROTHERMODYNAMIC DATA REPORT

JOHNSON SPACE CENTER

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SPACE DIVISION



**CHRYSLER
CORPORATION**

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NASA-CR-134,403

AERODYNAMIC RESULTS OF A SUPPORT SYSTEM
INTERFERENCE EFFECTS TEST CONDUCTED AT NASA/LaRC UPWT
USING AN 0.015-SCALE MODEL OF THE CONFIGURATION 140A/B
SSV ORBITER (0A20B)

By

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Prepared under NASA Contract Number NAS9-13247

By

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New Orleans, La. 70189

for

Engineering Analysis Division

Johnson Space Center
National Aeronautics and Space Administration
Houston, Texas

WIND TUNNEL TEST SPECIFICS:

Test Number: LaRC UPWT 1097
NASA Series Number: OA20B
Model Number: 49-0 MOD
Test Dates: 9 through 12 April 1974
Occupancy Hours: 38

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ABSTRACT

An experimental aerodynamic investigation (OA20B) was conducted in the NASA/LaRC UPWT from April 9 through April 12, 1974. The test article was the 0.015-scale 49-0 Mod. SSV Orbiter Configuration 140A/B model. The primary objective of this test was to determine the extent aerodynamic simulation of the Orbiter is affected by base mounting of the model, without MPS nozzles, on a straight sting.

To accomplish this, the model was first mounted on a non-metric blade-strut which closely approximated the vertical tail it replaced. Testing of the model without MPS nozzles was done utilizing a dummy straight sting in proximity to the model base. The dummy straight sting was removed and the MPS nozzles installed for the second series of tests. The balance cavity hole in the base of the model was sealed for all testing. In addition to balance force data, base pressure data on the model and blade-strut were obtained.

Data were obtained for each of these two configurations at $M_\infty = 2.5$, 3.95, and 4.63, $R/\lambda = 2.0 \times 10^6$ per foot $\delta_e = 0, 15$, and -40 degrees, $\delta_{BF} = -11.7$ and 16.3 degrees, $\alpha = -4$ to $+35$ degrees at $\beta = 0$ and 3 degrees.

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PLOTTED COEFFICIENTS SCHEDULE:

- (A) CL, CD, CDF, CA, CAF, CAB, CLMFWD, CLMAFT, CN versus ALPHA
 CN versus CLMFWD
 CL versus CLMFWD
 CL versus CD
 CAV, CNV, CMVFW, CMVAFT, CLV, CNT, CMTFWD, CMTAFT, CLT, CDT, CAT versus ALPHA
 CNT versus CMTFWD
 CLT versus CMTFWD
 CLT versus CDT
- (B) CL, CD, CDF, CA, CAF, CAB, CLMFWD, CLMAFT, CN versus ALPHA
 CN versus CLMFWD
 CL versus CLMFWD
 CL versus CD
 CAV, CNV, CMVFW, CMVAFT, CLV, CNT, CMTFWD, CMTAFT, CLT, CDT, CAT, versus ALPHA
 CNT versus CMTFWD
 CLT versus CMTFWD
 CLT versus CDT
 DCL, DCLV, DCLT, DCN, DCNV, DCNT, DCLMFD, DCMVFD, DCMTFD, DCD, DCDF, DCDT, DCA, DCAF, DCAV, DCPV1, DCPV2, DCPV3, DCPB1, DCPB2, DCPB3 versus ALPHA
- (C) CY, CYN, CBL, DCY, DCYN, DCBL versus ALPHA

NOMENCLATURE
General

<u>SYMBOL</u>	<u>SAE/NAC SYMBOL</u>	<u>DEFINITION</u>
a		speed of sound; m/sec, ft/sec
C_p	CP	pressure coefficient: $(p_1 - p_\infty)/q$
M	MACH	Mach number; V/a
p		pressure; N/m ² , psf
q	$Q(NCM)$ $Q(PCF)$	dynamic pressure; $1/2\rho V^2$, N/m ² , psf
Re/L	Re/L	unit Reynolds number; per m, per ft
V		velocity; m/sec, ft/sec
α	ALPHA	angle of attack, degrees
β	BETA	angle of sideslip, degrees
ψ	PSI	angle of yaw, degrees
ϕ	PHI	angle of roll, degrees
ρ		mass density; kg/m ³ , slugs/ft ³

Reference & C.G. Definitions

S_b		base area; m ² , ft ²
b	BREF	wing span or reference span; m, ft
$x.g.$		center of gravity
\bar{L}_{REF}	LREF	reference length or wing mean aerodynamic chord; m, ft
S	SREF	wing area or reference area; m ² , ft ²
	MRF	moment reference point
	XMRP	moment reference point on X axis
	YMRP	moment reference point on Y axis
	ZMRP	moment reference point on Z axis

SUBSCRIPTS

b	base
l	local
s	static conditions
t	total conditions
∞	free stream

NOMINCLATURE (Continued)

Body-Axis System

<u>SYMBOL</u>	<u>SADGAC SYMBOL</u>	<u>DEFINITION</u>
C_N	CN	normal-force coefficient; $\frac{\text{normal force}}{qS}$
C_A	CA	axial-force coefficient; $\frac{\text{axial force}}{qS}$
C_Y	CY	side-force coefficient; $\frac{\text{side force}}{qS}$
C_{A_b}	CAB	base-force coefficient; $\frac{\text{base force}}{qS}$ $-A_b(p_b - p_\infty)/qS$
C_{A_f}	CAF	forebody axial force coefficient, $C_A - C_{A_b}$
C_m	CLM	pitching-moment coefficient; $\frac{\text{pitching moment}}{qS_{REF}}$
C_n	CYN	yawing-moment coefficient; $\frac{\text{yawing moment}}{qS_b}$
C_l	CLL	rolling-moment coefficient; $\frac{\text{rolling moment}}{qS_b}$

Stability-Axis System

C_L	CL	lift coefficient; $\frac{\text{lift}}{qS}$
C_D	CD	drag coefficient; $\frac{\text{drag}}{qS}$
C_{D_b}	CDB	base-drag coefficient; $\frac{\text{base drag}}{qS}$
C_{D_f}	CDF	forebody drag coefficient; $C_D - C_{D_b}$
C_Y	CY	side-force coefficient; $\frac{\text{side force}}{qS}$
C_m	CLM	pitching-moment coefficient; $\frac{\text{pitching moment}}{qS_{REF}}$
C_n	CLN	yawing-moment coefficient; $\frac{\text{yawing moment}}{qS_b}$
C_l	CLL	rolling-moment coefficient; $\frac{\text{rolling moment}}{qS_b}$
L/D	L/D	lift-to-drag ratio; C_L/C_D
L/D_f	L/DF	lift to forebody drag ratio; C_L/C_{D_f}

NOMENCLATURE (Continued)
Additions to Standard List

<u>Symbol</u>	<u>SADSAC Symbol</u>	<u>Definition</u>
$A_{B(i)}$		fuselage base area applicable to i th pressure, in^2
$A_{V(i)}$		vertical tail base area applicable to i th pressure, in^2
C_{A_B}	CAB	fuselage base axial-force coefficient
C_{A_V}	CAV	vertical tail base axial-force coefficient
C_{L_V}	CLV	vertical tail base lift coefficient
C_{N_V}	CNV	vertical tail base normal-force coefficient
$C_{m_{V0.65}}$	CMVFD	vertical tail base pitching-moment coefficient about MRP at 65% body length
$C_{m_{V0.675}}$	CMVAFT	vertical tail base pitching-moment coefficient about MRP at 67.5% body length
$C_{m0.65}$	CLM	pitching-moment coefficient about MRP at 65% body length
$C_{m0.675}$	CLMAFT	pitching-moment coefficient about MRP at 67.5% body length
$C_{P_{B(i)}}$	CPBi	fuselage base pressure coefficient at i th station (where $i = 1, 2, 3$)
$C_{P_{V(i)}}$	CPVi	vertical tail base pressure coefficient at i th station (where $i = 1, 2, 3$)
l_B		reference body length, in
$P_{B(i)}$		fuselage base pressure at i th station, psia

NOMENCLATURE (Continued)

<u>Symbol</u>	<u>SADSAC Symbol</u>	<u>Definition</u>
$P_V(i)$		vertical tail base pressure at i th station, psia
δ_{BF}	BDFLAP	body flap deflection angle, degrees
δ_e	ELEVON	elevon deflection angle, degrees
δ_{S3}	SPDBRK	speed brake deflection angle, degrees
C_{DT}	CDT	total drag ($C_D + C_{DV}$) coefficient
C_{LT}	CLT	total lift ($C_L + C_{LV}$) coefficient
C_{AT}	CAT	total axial-force ($C_A + C_{AV}$) coefficient
C_{NT}	CNT	total normal-force ($C_N + C_{NV}$) coefficient
$C_{mT0.65}$	CMTFWD	total pitching-moment ($C_{LM} + C_{MVFW}$) coefficient about MRP at 65% body length
$C_{mT0.675}$	CMTAFT	total pitching-moment ($C_{LMAFT} + C_{MVAFT}$) coefficient about MRP at 67.5% body length
ΔC_L	DCL	incremental lift coefficient
ΔC_D	DCD	incremental drag coefficient
ΔC_{Df}	DCDF	incremental forebody axial force coefficient
ΔC_{Db}	DCDB	incremental base-drag coefficient
ΔC_A	DCA	incremental axial force coefficient
ΔC_{Af}	DCAF	incremental forebody axial force coefficient
ΔC_N	DCN	incremental normal force coefficient
ΔC_{Ab}	DCAB	incremental base axial force coefficient
$\Delta C_{m0.65}$	DCLMFD	incremental pitching-moment coefficient about MRP at 65% body length

NOMENCLATURE (Concluded)

<u>Symbol</u>	<u>SADSAC Symbol</u>	<u>Definition</u>
$\Delta C_{m0.675}$	DCLMAF	incremental pitching-moment coefficient about MRP at 67.5% body length
ΔC_y	DCY	incremental side force coefficient
ΔC_n	DCYN	incremental yawing moment coefficient
ΔC_l	DCBL	incremental rolling moment coefficient
ΔC_{LV}	DCLV	incremental vertical tail base lift coefficient
ΔC_{DV}	DCDV	incremental vertical tail base drag coefficient
ΔC_{AV}	DCAV	incremental vertical tail base axial-force coefficient
ΔC_{NV}	DCNV	incremental vertical tail base normal-force coefficient
$\Delta C_{mv0.65}$	DCMVFD	incremental vertical tail base pitching-moment coefficient about MRP at 65% body length
$\Delta C_{mv0.675}$	DCMVAF	incremental vertical tail base pitching-moment coefficient about MRP at 67.5% body length
ΔC_{LT}	DCLT	incremental total lift (CL + CLV) coefficient
ΔC_{NT}	DCNT	incremental total normal-force (CN + CNV) coefficient
ΔC_{DT}	DCDT	incremental total drag (CD + CDT) coefficient
ΔC_{AT}	DCAT	incremental total axial-force (CA + CAV) coefficient
$\Delta C_{mT0.65}$	DCMTFD	incremental total pitching-moment (CLM + CMVFD) coefficient about MRP at 65% body length
$\Delta C_{mT0.675}$	DCMTAF	incremental total pitching-moment (CLMAFT + CMVAFT) coefficient about MRP at 67.5% body length

CONFIGURATIONS INVESTIGATED

Two support systems were tested. One was a Rockwell supplied blade-strut support which enters through the top of the model near the base, replacing the vertical tail. Refer to figures 2b and 2c. The strut simulated a vertical tail with a 54.92° speed brake setting to the extent that its span and profile closely matched. A dummy sting was located (via a stringer from the Rockwell sting which supports the blade strut) in close proximity, but non-metric to the base. This configuration was run without MPS nozzles. Secondly, the model was tested without the dummy sting, and MPS nozzles attached. The balance cavity hole in the base of the model was sealed for all testing.

Control surfaces tested were:

elevon: 0°, 15°, and -40°
 bodyflap -11.7°, and +16.3°
 speedbrake: 54.92°
 rudder: 0°

The model component designations were as follows:

$$0_{118} = B_{26} C_9 E_{37} F_7 M_{14} N_{24} N_{28} R_5 V_8 W_{116}$$

<u>Component</u>	<u>Definition</u>
B ₂₆	Fuselage: Forebody per Rockwell lines VL70-000143E; mid-body per lines -000200, -000205 and -006089; aft body per lines -000145, (Model drawing SS-A00147, Release 12)
C ₉	Canopy per Rockwell lines VL70-000143B (Model drawing SS-A00147, Release 12)
E ₃₇	Alternate slotted elevons per Rockwell lines VL70-000200, -006089, -006092 and figure 4A of SAS/AERO/76-643, dated October 31, 1973 (Model drawing SS-A00147, Release 6)
F ₇	Bodyflap per Rockwell lines VL70-000145 (Model drawing SS-A00147, Release 12)

CONFIGURATIONS INVESTIGATED (Concluded)

M₁₄ OMS/RCS pods per Rockwell lines VL70-008457 (This OMS pod replaces the one shown on drawing VL70-000140C)

N₂₄ MPS nozzles; contour per measurements made on Rockwell configuration control drawing VL70-005030A; location per configuration control drawing VL70-000140A (Model drawing SS-A00147, Release 12)

N₂₈ OMS nozzles; contour per model drawing SS-A00106, release 5; location per Rockwell configuration control drawing VL70-000140A (Model drawing SS-A00147, Release 12)

R₅ Rudder per Rockwell lines VL70-000146A (Model drawing SS-A00148, Release 6)

V₈ Vertical tail per Rockwell lines VL70-000146A (Model drawing SS-A00148, Release 6)

W₁₁₆ Wing per Rockwell lines VL70-000200, -006089 and -006092 (Model drawing SS-A00148, Release 6)

INSTRUMENTATION

The Orbiter was mounted on the NASA/LaRC #840 internal strain gage balance. The balance center was located at model station $X_0 = 15.911$, $Y_0 = 0.000$, and $Z_0 = 5.850$ inches. Balance leads were through a channel in the base of the blade-strut and internally through the Rockwell primary support strip.

The model originally had five (5) base pressure taps. Refer to Figure 2f. However, it was decided to manifold P_{B3} through P_{B5} and rename this as P_{B1} . The P_{B1} on Figure 2f was renamed P_{B3} . P_{B2} did not change. There were three (3) base pressures on the blade-strut. Refer to Figure 2d. P_{F1} and P_{F2} were not used. All pressures used 0.070-O.D. hardline tubing.

TEST FACILITY DESCRIPTION

The NASA LaRC 4 foot Unitary Plan Wind Tunnel (UPWT) is a closed-circuit, continuous flow, variable density facility. The test section is 4 feet by 4 feet by 7 feet long.

Two tunnel legs are available for supersonic testing in the Mach number ranges 1.47 to 2.86 (Leg No. 1) and 2.29 to 4.63 (Leg No. 2). An asymmetric, sliding block nozzle position and total pressure setting provide the test Mach numbers at a specified Reynolds number. Reynolds number can be varied from 0.76 to 7.78 million per foot. Available stagnation pressure variation is 4.0 to 142. psia. Dynamic pressure variation is 95 to 1260 psf with normal operating stagnation temperature about 150°F in Mach modes 2 or 3 and about 175°F in Mach mode 4. The tunnel is equipped with a dry air supply, an evacuating system, and a cooling system. The facility power is approximately 83,000 horsepower.

Model mounting provisions consist of various sting arrangements, including axial (longitudinal), lateral (independent pitch and yaw), and roll movement with side wall support. A Schlieren system and oil flow visualization equipment are available. Data are recorded at the tunnel and reduced off-line at the Langley Computer Center. The tunnel is used for force and moment, pressure, and dynamic stability tests. Hot and cold jet effects and heat transfer have been studied in the UPWT.

DATA REDUCTION

Standard NASA/LaRC data reduction techniques were used.

Reference dimensions were as follows:

<u>Symbol</u>	<u>Definition</u>	<u>Model Scale Value</u>
$A_{B(1)}$	base area associated with $P_{B(3,4,5)}$ and cavity	0.0648 ft^2
$A_{B(2)}$	base area associated with $P_{B(2)}$	0.0201 ft^2
$A_{B(3)}$	base area associated with $P_{B(1)}$	0.0108 ft^2
b	reference wing span	1.171 ft
\bar{c}	reference M.A.C.	0.5935 ft
L_B	reference body length (IML)	1.613 ft
S	reference wing area	0.6053 ft^2
XMRP	longitudinal distance, model nose IML to moment reference center	12.5805 in
YMRP	lateral distance, plane of symmetry to moment reference center	0.0 in
ZMRP	vertical distance, FRP to moment reference center	-0.375 in

Corresponding full scale values are:

<u>Symbol</u>	<u>Definition</u>	<u>Full Scale Value</u>
b	reference wing span	936.68 in
\bar{c}	reference M.A.C.	474.8 in
L_B	reference body length (IML)	1290.3 in
S	reference wing area	2690.0 ft^2
XMRP	longitudinal location of moment reference center	1076.7 in. X_0

DATA REDUCTION (Concluded)

YMRP	lateral location of moment reference center	0.0 in. Y_0
ZMRP	vertical location of moment reference center	375.0 in. Z_0

TABLE I.

[illegible]

TABLE II.

[illegible]

*REVISED 4/24/74

TABLE III.- MODEL DIMENSIONAL DATA

MODEL COMPONENT BODY B₂₆

GENERAL DESCRIPTION Configuration 140 A B Orbiter Fuselage

NOTE: B₂₆ identical to B₂₄ except underside of fuselage repaired to
accept B₁₁₆.

MODEL SCALE: 0.015 MODEL DRAWING: DS A00147

DRAWING NUMBER VL70-000143B/0200/0205/6089/0145

DIMENSIONS	FULL SCALE	MODEL SCALE
Length (Body fwd sta. X ₀ = 235) In.	<u>1228.3</u>	<u>19.400 (OML)</u>
*Max Width (at X ₀ = 1528.3) In.	<u>264.0</u>	<u>3.960</u>
Max Depth (at X = 1464) In.	<u>250.0</u>	<u>3.750</u>
Fineness Ratio	<u> </u>	<u> </u>
Area Ft ²	<u> </u>	<u> </u>
Max. Cross-Sectional	<u>340.88</u>	<u>0.01670</u>
Planform	<u> </u>	<u> </u>
Wetted	<u> </u>	<u> </u>
Base	<u> </u>	<u> </u>

*REVISED 4-24-76

TABLE III. - MODEL DIMENSIONAL DATA - Continued.

MODEL COMPONENT CANOPY C_g
GENERAL DESCRIPTION Configuration 140 A/B Orifice Enclosure

MODEL SCALE: 0.015 MODEL DRAWING: SS-000147 REF. # 12
DRAWING NUMBER VL70-000143B

DIMENSIONS	FULL SCALE	MODEL SCALE
* Length ($X_0 = 434.643$ to 578)	<u>143.357</u>	<u>2.150</u>
Max Width ($X_0 = 513.127$)	<u>152.112</u>	<u>2.286</u>
Max Depth (@ $X_0 = 485.0$)	<u>25.000</u>	<u>0.375</u>
Fineness Ratio	<u></u>	<u></u>
Area	<u></u>	<u></u>
Max. Cross-Sectional	<u></u>	<u></u>
Planform	<u></u>	<u></u>
Wetted	<u></u>	<u></u>
Base	<u></u>	<u></u>

TABLE III. - MODEL DIMENSIONAL DATA - Continued.

REVISED 4/24/74

MODEL COMPONENT: ALTERNATE SLOTTED ELEVON - E₃₇

GENERAL DESCRIPTION: Configuration 140A/B Orbiter Elevon

E₃₇ is a slotted version of E₂₆. Data are for one side.

MODEL SCALE: 0.015

MODEL DRAWING: SS-A00147, RELEASE 12

DRAWING NUMBER: VL70-000200, -006089, -006092 and
Fig. 4A of SAS/AERO/76-643

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
Area Ft^2	<u>210.0</u>	<u>0.0473</u>
Span (equivalent) - In.	<u>349.2</u>	<u>5.238</u>
Inb'd equivalent chord - In.	<u>118.004</u>	<u>1.770</u>
Outb'd equivalent chord In.	<u>55.192</u>	<u>0.828</u>
Ratio movable surface chord/ total surface chord		
At Inb'd equiv. chord	<u>0.2096</u>	<u>0.2096</u>
At Outb'd equiv. chord	<u>0.4004</u>	<u>0.4004</u>
Sweep Back Angles, degrees		
Leading Edge	<u>0.00</u>	<u>0.00</u>
Trailing Edge	<u>- 10.056</u>	<u>- 10.056</u>
Hingeline	<u>0.00</u>	<u>0.00</u>
*Area Moment (Product of area & \bar{c}) - Ft^3	<u>1587.25</u>	<u>0.00536</u>
*Mean Aerodynamic Chord- In.	<u>90.7</u>	<u>1.361</u>

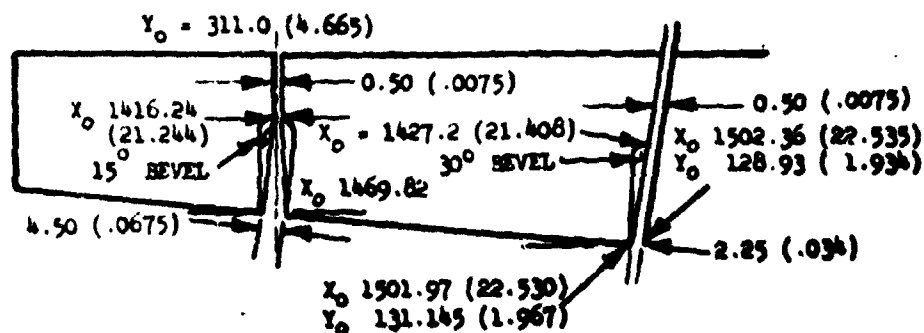


TABLE III. - MODEL DIMENSIONAL DATA - Continued.

MODEL COMPONENT BODY FLAP - F₇

GENERAL DESCRIPTION: Configuration 140A/B Orbiter Body Flap

NOTE: Body flap has variable centerline deflection of +13.75° and
-14.25° from null position. Hinge line located at X₀ = 1528.3
Z₀ = 284.3 MODEL SCALE: 0.015

DRAWING NUMBER VL70-000145 MODEL DRAWING: SS-AC0147

DIMENSIONS	FULL SCALE	MODEL SCALE
Length (X ₀ =1520 to X ₀ 1613) - In.	<u>93.000</u>	<u>1.395</u>
Max Width - In.	<u>262.000</u>	<u>3.930</u>
Max Depth (X ₀ = 1520) - In.	<u>23.000</u>	<u>0.345</u>
Fineness Ratio	<u> </u>	<u> </u>
Area - Ft ²	<u> </u>	<u> </u>
Max. Cross-Sectional	<u> </u>	<u> </u>
Planform	<u>150.5250</u>	<u>0.0339</u>
Wetted	<u> </u>	<u> </u>
Base	<u>41.84722</u>	<u>0.00941</u>

TABLE III. MODEL DIMENSIONAL DATA - Continued

MODEL COMPONENT : OMS POD - M14

GENERAL DESCRIPTION : Configuration 140A/B Orbiter OMS-Pod

APS short pod - This OMS pod replaces the one shown on drawing

VL70-000140C.

MODEL SCALE: 0.015 Lines Drawing No. VL70-008457

DRAWING NUMBER : _____

DIMENSIONS .	FULL SCALE	MODEL SCALE
Length (OMS Fwd Sta $X_0=1311$)-In.	<u>254.0</u>	<u>3.814</u>
Max Width (@ $X_0 = 1511.0$) - In.	<u>135.6</u>	<u>2.034</u>
Max Depth (@ $X_0 = 1511.0$) - In.	<u>73.6</u>	<u>1.104</u>
Fineness Ratio	<u>2.54</u>	<u>2.54</u>
Area -Ft. ²	<u> </u>	<u> </u>
Max. Cross-Sectional	<u>54.507</u>	<u>0.01216</u>
Planform	<u> </u>	<u> </u>
Wetted	<u> </u>	<u> </u>
Base	<u> </u>	<u> </u>

TABLE III. - MODEL DIMENSIONAL DATA - Continued.

MODEL COMPONENT: MPS NOZZLES - N₂₄

GENERAL DESCRIPTION: Configuration 140A/B Orbiter MPS Nozzles

MODEL SCALE: 0.015

MODEL DRAWING: SS-A00147, RELEASE 12

DRAWING NUMBER: VL70-005030A, VL70-000140A

DIMENSIONS:	FULL SCALE	MODEL SCALE
MACH NO.		
Length - In.		
Gimbal Point to Exit Plane	157.0	2.355
Throat to Exit Plane	92.2	1.488
Diameter - In.		
Exit	91.000	1.410
Throat		
Inlet		
Area - ft ²		
Exit	45.166	0.010
Throat		
Gimbal Point (Station) - In.		
Upper Nozzle		
X	1445.0	21.675
Y	0.0	0.0
Z	443.0	6.645
Lower Nozzles		
X	1468.170	22.023
Y	53.000	0.795
Z	342.640	5.140...
Null Position - Deg.		
Upper Nozzle		
Pitch	16°	16°
Yaw	0°	0°
Lower Nozzle		
Pitch	10°	10°
Yaw	3.5°	3.5°

TABLE III. - MODEL DIMENSIONAL DATA - Continued.

MODEL COMPONENT: NOZZLES - N₂₈

GENERAL DESCRIPTION: Configuration 140A/B Orbiter OMS Nozzle

MODEL SCALE: 0.015

MODEL DRAWING: SS-A00147

MODEL SCALE = 0.015

DRAWING NO. VL70-000140A

DIMENSIONS

FULL SCALE

MODEL SCALE

Mach No. _____

Length ~ in.

Gimbal Point to Exit Plane

Throat to Exit Plane

Diameter ~ in.

Exit

Throat

Inlet

Area ~ ft².

Exit

Throat

Gimbal Point (station) ~ in.

X

1518.0

22.77

Y

+ 88.0

1.32

Z

492.0-

7.38

Null Position ~ deg.

Pitch

15°49'

15°49'

Yaw

12°17'

12°17'

TABLE III. - MODEL DIMENSIONAL DATA - Continued.

*REVISED 4/24/74

MODEL COMPONENT: RUDDER - R₅GENERAL DESCRIPTION: Configuration 140A/B Orbiter RudderMODEL SCALE: 0.015 MODEL DRAWING: SS-A00148DRAWING NUMBER: ~~VL70-000095~~, VL70-000146A

<u>DIMENSIONS:</u>	<u>FULL-SCALE</u>	<u>MODEL SCALE</u>
*Area - Ft ²	<u>100.15</u>	<u>0.0225</u>
Span (equivalent) - In.	<u>201.0</u>	<u>3.015</u>
Inb'd equivalent chord - In.	<u>91.585</u>	<u>1.374</u>
Outb'd equivalent chord - In.	<u>50.833</u>	<u>0.762</u>
Ratio movable surface chord/ total surface chord		
At Inb'd equiv. chord	<u>0.400</u>	<u>0.400</u>
At Outb'd equiv. chord	<u>0.400</u>	<u>0.400</u>
Sweep Back Angles, degrees		
Leading Edge	<u>34.83</u>	<u>34.83</u>
Trailing Edge	<u>26.25</u>	<u>26.25</u>
Hingeline	<u>34.83</u>	<u>34.83</u>
*Area Moment (Product of area & c̄) - Ft ³	<u>610.92</u>	<u>0.00206</u>
*Product of Area and Mean Chord In.	<u>73.2</u>	<u>1.098</u>

*REVISED 4/24/74

TABLE III. - MODEL DIMENSIONAL DATA - Continued.

MODEL COMPONENT: VERTICAL - V₈

GENERAL DESCRIPTION: Configuration 140A/B Orbiter Vertical Tail

NOTE: Similar to V5 with radius on Trailing Edge upper corner and Leading
Edge lower corner where vertical meets fuselage

MODEL SCALE: 0.015

DRAWING NUMBER: VL70-000140A, VL70-000146A

DIMENSIONS: FULL SCALE MODEL SCALE

TOTAL DATA

Area (Theo) - Ft ²		
Planform	<u>413.253</u>	<u>0.093</u>
Span (Theo) - In.	<u>315.720</u>	<u>4.736</u>
Aspect Ratio	<u>1.675</u>	<u>1.675</u>
Rate of Taper	<u>0.507</u>	<u>0.507</u>
Taper Ratio	<u>0.404</u>	<u>0.404</u>
Sweep-Back Angles, Degrees.		
Leading Edge	<u>45.000</u>	<u>45.000</u>
* Trailing Edge	<u>26.2</u>	<u>26.2</u>
0.25 Element Line	<u>41.130</u>	<u>41.130</u>
Chords:		
Root (Theo) WP	<u>268.500</u>	<u>4.028</u>
Tip (Theo) WP	<u>108.470</u>	<u>1.627</u>
MAC	<u>199.808</u>	<u>2.997</u>
Fus. Sta. of .25 MAC	<u>1463.50</u>	<u>21.953</u>
W.P. of .25 MAC	<u>635.522</u>	<u>9.533</u>
B.L. of .25 MAC	<u>0.00</u>	<u>0.00</u>
Airfoil Section		
Leading Wedge Angle - Deg.	<u>10.00</u>	<u>10.00</u>
Trailing Wedge Angle - Deg.	<u>14.920</u>	<u>14.920</u>
Leading Edge Radius	<u>2.00</u>	<u>0.030</u>
Void Area	<u>13.17</u>	<u>0.003</u>
Blanketed Area	<u>0.00</u>	<u>0.00</u>

TABLE III. - MODEL DIMENSIONAL DATA - Concluded.

*REVISED 4/24/74

MODEL COMPONENT:	WING-W ₁₁₆	
GENERAL DESCRIPTION:	Configuration 140 A/B Orbiter Wing	
NOTE:	Identical to W ₁₁₄ except airfoil thickness. Dihedral angle is along trailing edge of wing.	
MODEL SCALE:	0.015	MODEL DRAWING: SS-A00148
TEST NO.		DWG. NO. VL70-000140B, -006089 VL70-000200, -006072
DIMENSIONS:	FULL-SCALE	MODEL SCALE
TOTAL DATA		
Area (Theo.) Ft ²		
Planform	2690.00	0.605
Span (Theo) In.	936.682	14.050
Aspect Ratio	2.265	2.265
Rate of Taper	1.177	1.177
Taper Ratio	0.200	0.200
Dihedral Angle, degrees	3.500	3.500
Incidence Angle, degrees	0.500	0.500
Aerodynamic Twist, degrees	+ 3.000	+ 3.000
Sweep Back Angles, degrees		
Leading Edge	45.000	45.000
Trailing Edge	10.056	10.056
0.25 Element Line	35.209	35.209
Chords:		
Root (Theo) B.P.O.O.	689.243	10.339
Tip, (Theo) B.P.	137.849	2.068
MAC	474.812	7.122
* Fus. Sta. of .25 MAC	1136.83	16.902
* W.P. of .25 MAC	290.58	4.359
* B.L. of .25 MAC	182.13	2.732
EXPOSED DATA		
*Area (Theo) Ft ²	1751.50	0.359
*Span, (Theo) In. BP108	720.68	10.810
*Aspect Ratio	2.058	2.058
Taper Ratio	0.245	0.245
Chords		
*Root BP108	562.09	8.431
Tip 1.00 $\frac{b}{2}$	137.851	2.06
*MAC	392.83	5.892
*Fus. Sta. of .25 MAC	1185.98	17.790
*W.P. of .25 MAC	294.30	4.265
*B.L. of .25 MAC	251.77	3.777
Airfoil Section (Rockwell Mod NASA)		
XXXX-64		
Root $\frac{b}{2}$	0.113	0.113
Tip $\frac{b}{2}$	0.12	0.12
Data for (1) of (2) Sides		
Leading Edge Cuff $\frac{2}{2}$		
*Planform Area Ft ²	113.18	0.025
*Leading Edge Intersects Fus M. L. @ Sta	500.0	7.500
*Leading Edge Intersects Wing @ Sta	1024.00	15.360

TABLE IV
DATASET COMBINATIONS USED TO OBTAIN INCREMENTAL DATA

RESULTING DATASET (Increment)	MINUEND DATASET (Model + Strut + Dummy Sting)	SUBTRAHEND DATASET (Model + Strut + Nozzle)	β	δe	δBP
XQ2001	RQ2001	RQ2007	0	0	-11.7
XQ2002	RQ2002	RQ2008	3	0	-11.7
XQ2003	RQ2003	RQ2009	0	0	16.3
XQ2004	RQ2004	RQ2010	0	15	16.3
XQ2005	RQ2005	RQ2006	0	-40	-11.7

X = J, L, N, or P

NOTE:

- MODEL VERTICAL TAIL WAS REPLACED BY NON-METRIC BLADE STRUT. PRESSURES ON STRUT BASE WERE USED TO ESTIMATE INCREMENTAL FORCES ON VERTICAL TAIL.
- INCREMENT = [MODEL + STRUT + DUMMY STING] - [MODEL + STRUT + NOZZLE]
- INCREMENTS REPRESENT MPS NOZZLE EFFECTS AND STING INTERFERENCE TARES. DATA OBTAINED USING A STING ON A MODEL WITHOUT MPS NOZZLES MAY BE CORRECTED BY REMOVING THIS INCREMENT.

Notes:

1. Positive directions of force coefficients, moment coefficients, and angles are indicated by arrow
2. For clarity, origins of wind and stability axes have been displaced from the center of gravity

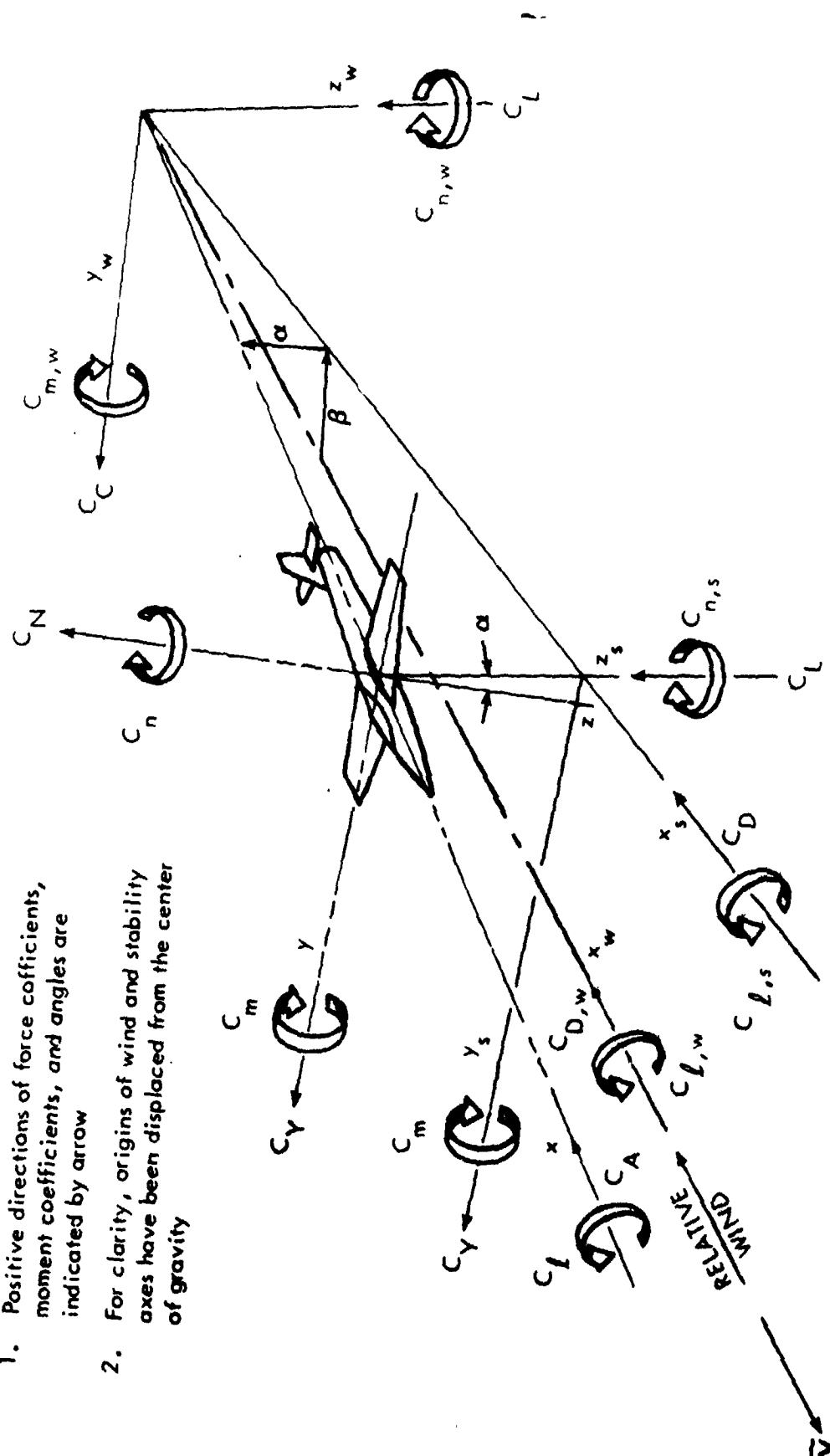
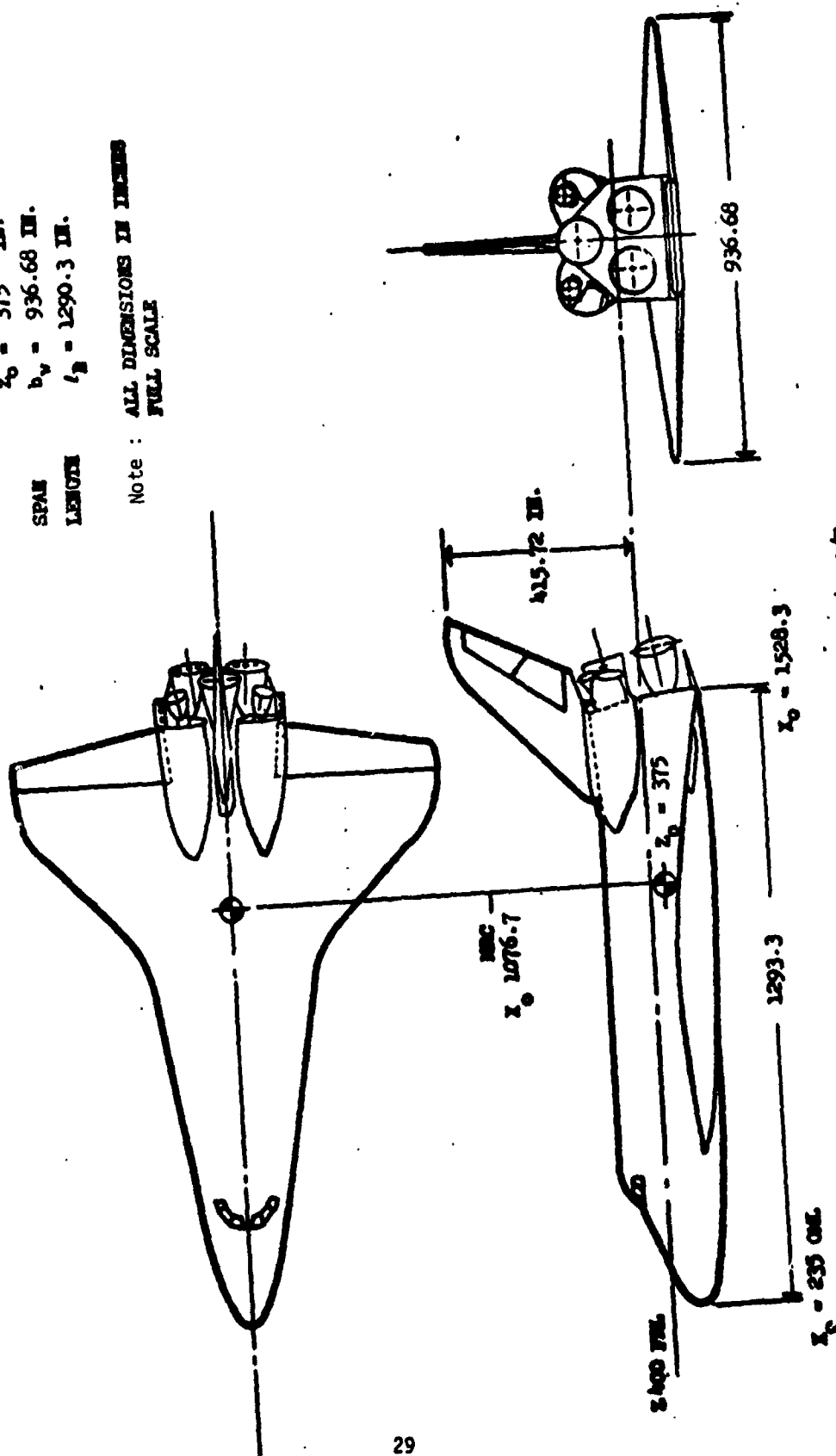


Figure 1. - Axis systems.

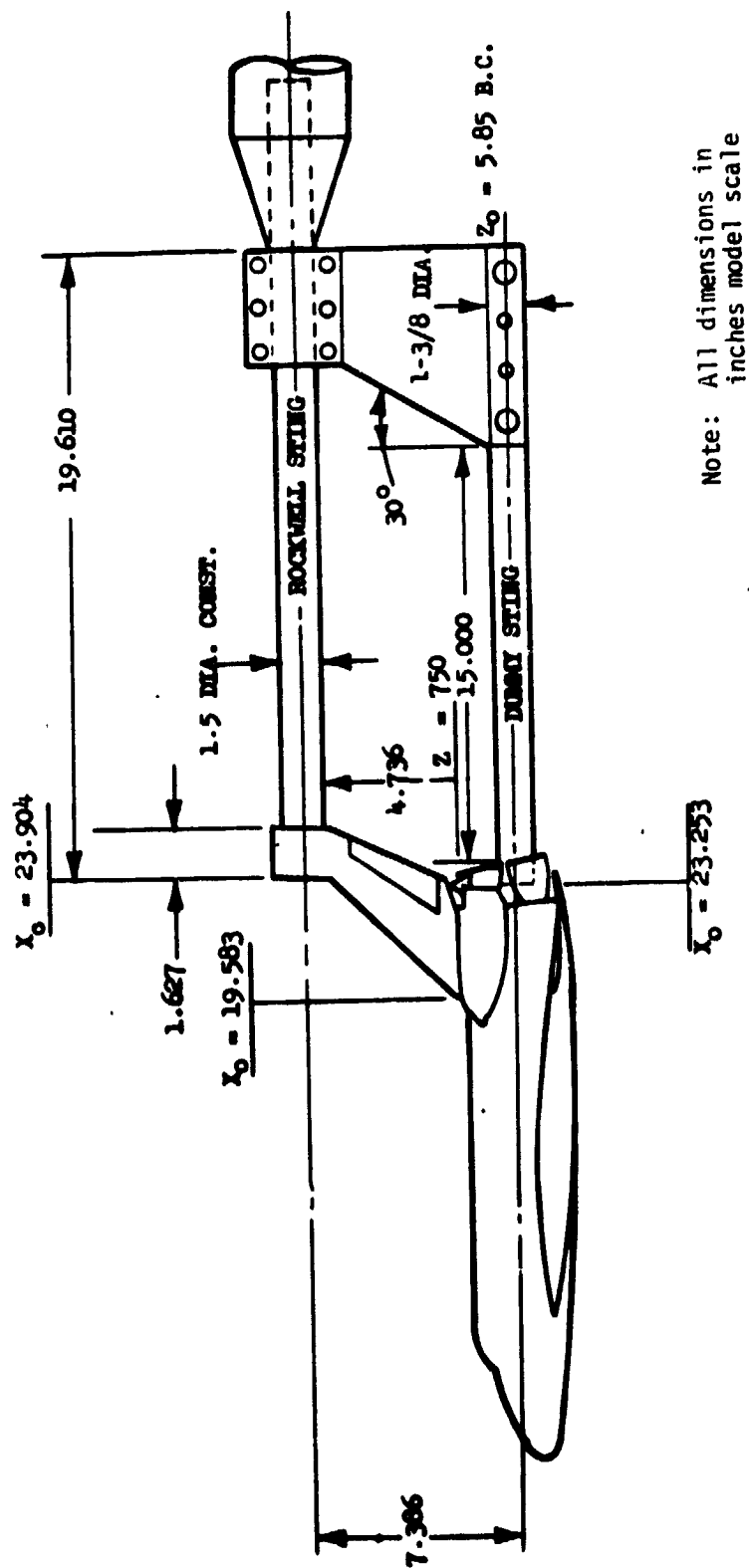
REFERENCE	DIMENSIONS (IN)
AREA	$S_v = 2690 \text{ FT}^2$
MAC	$C = 474.8 \text{ IN.}$
C.G.	$X_o = 1076.7 \text{ IN.}$
	$Z_o = 375 \text{ IN.}$
SPAN	$b_v = 936.68 \text{ IN.}$
LENGTH	$l_n = 1290.3 \text{ IN.}$

Note : ALL DIMENSIONS IN INCHES
FULL SCALE



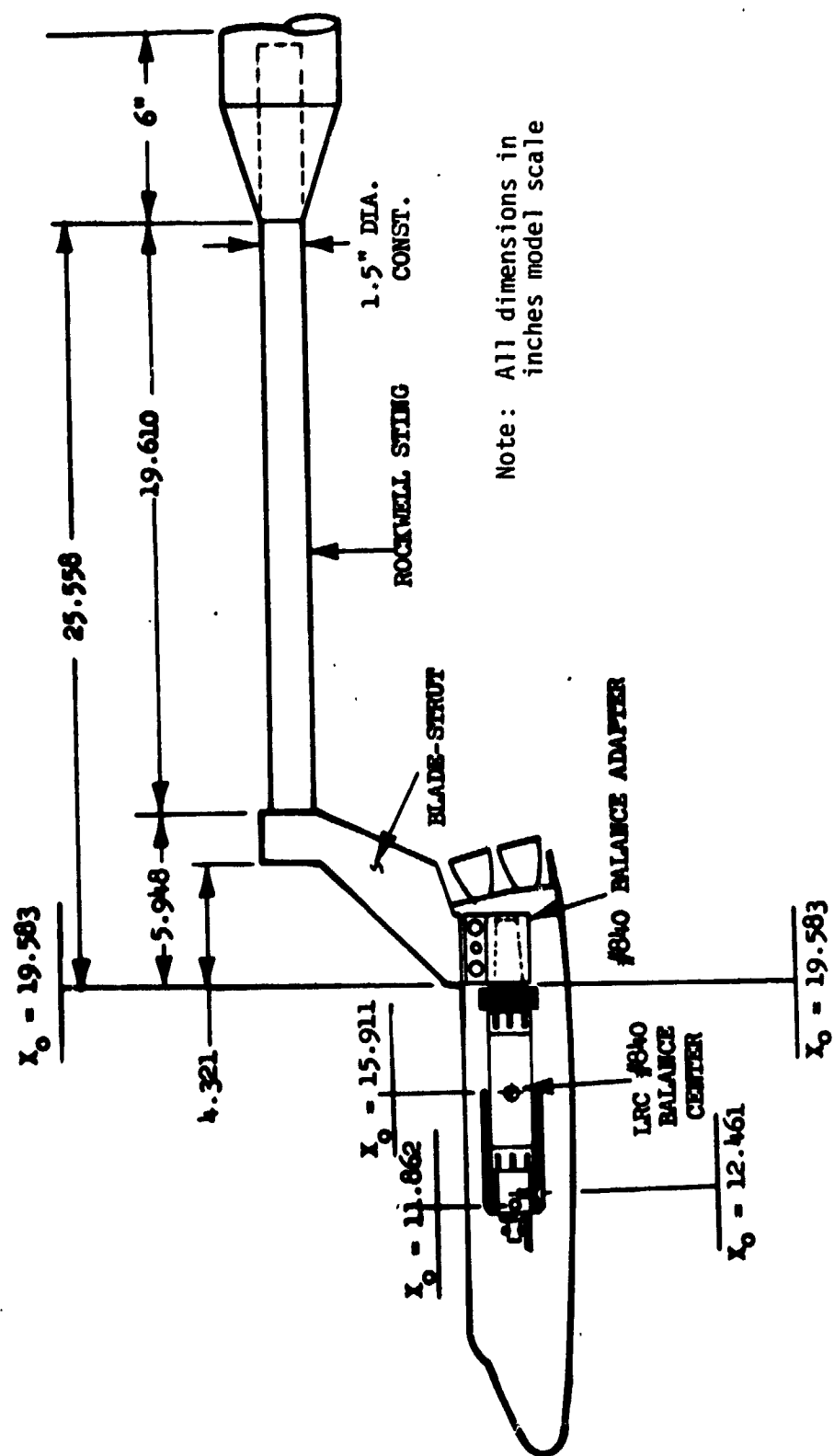
a. SSV Orbiter Configuration 1A0 A/B

Figure 2. - Model sketches.



b. Blade-Strut Plus Dummy Sting Installation in LAC UPWT

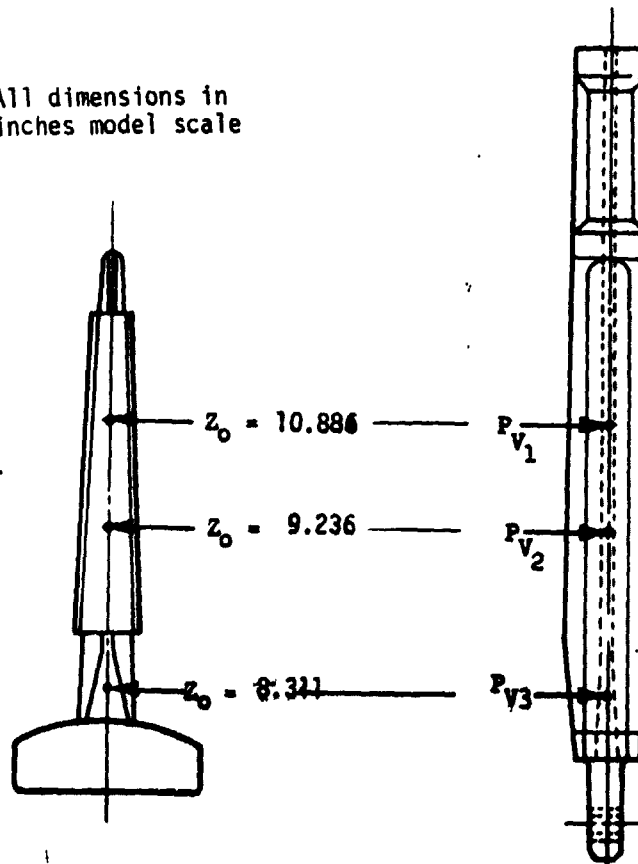
Figure 2. - Continued.



c. Blade-Strut Installation in LRC UPWT

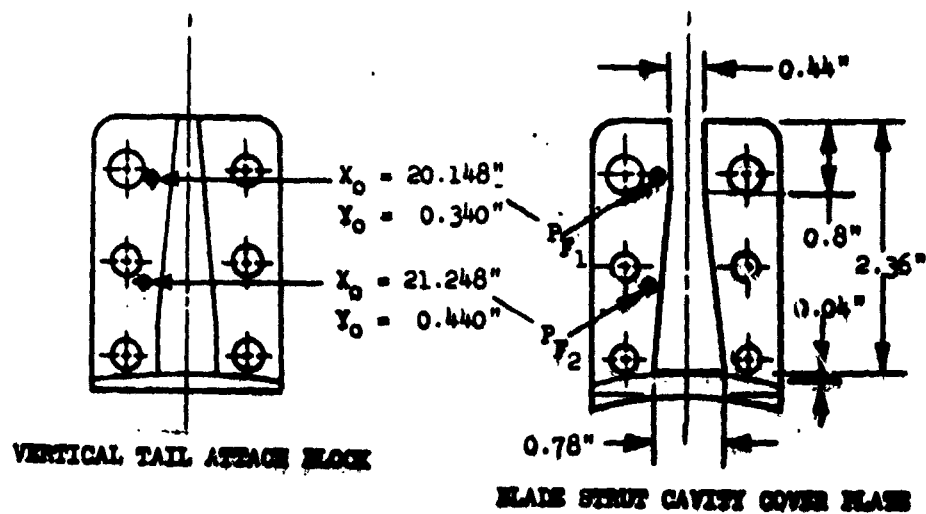
Figure 2. - Continued.

Note: All dimensions in inches model scale



VERTICAL TAIL T.E.

BLADE-STRUT T.E.

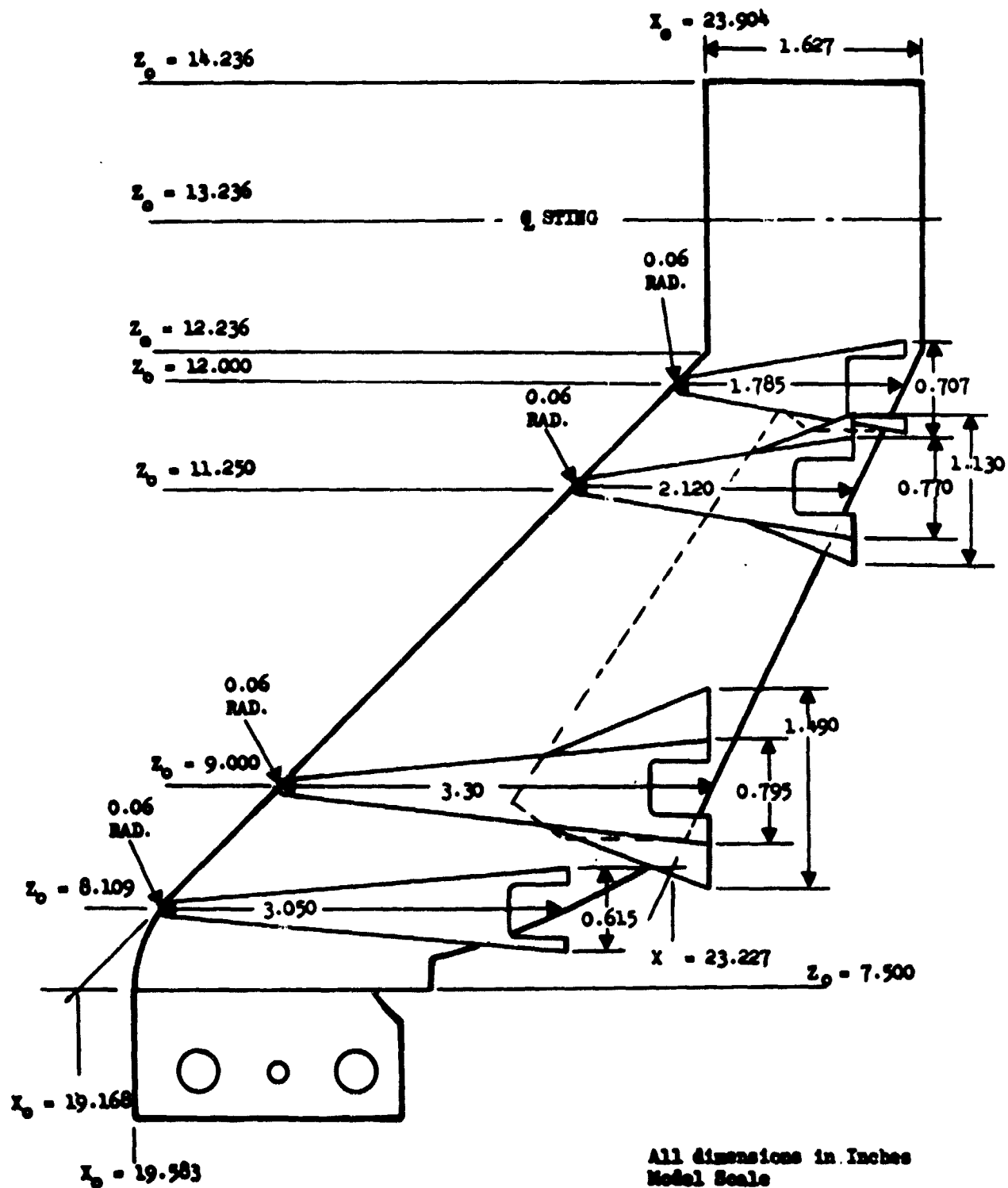


VERTICAL TAIL ATTACH BLOCK

BLADE STRUT CAVITY COVER PLATE

d. Top Fuselage and T.E. Pressure Locations

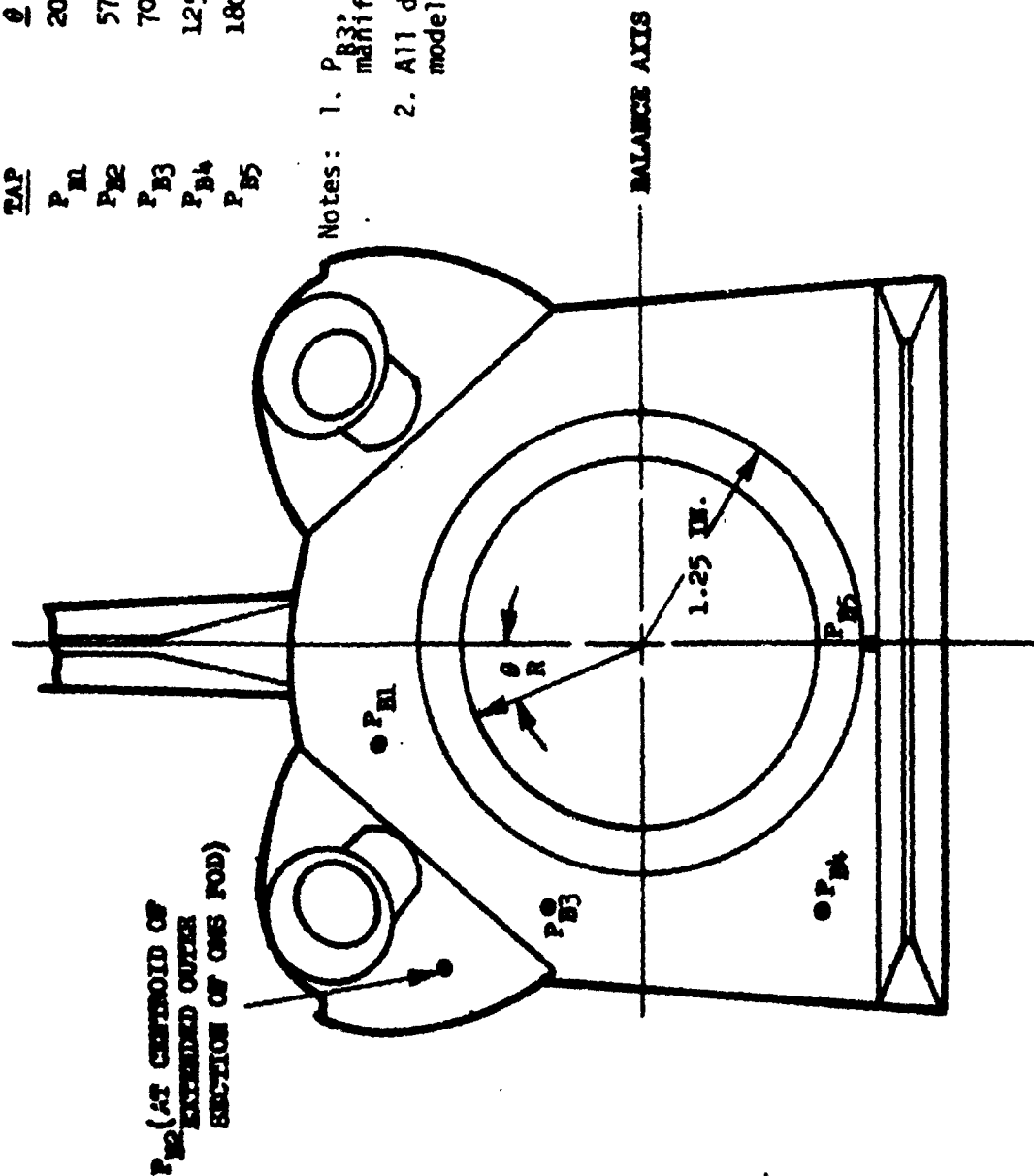
Figure 2. - Continued.



e. Blade-Strut with 55-degree Speed Brake Simulation
Figure 2. - Continued.

TAP	θ	R
P _{B1}	20°	1.60 IN.
P _{B2}	57°	2.10 IN.
P _{B3}	70°	1.50 IN.
P _{B4}	125°	1.76 IN.
P _{B5}	180°	1.29 IN.

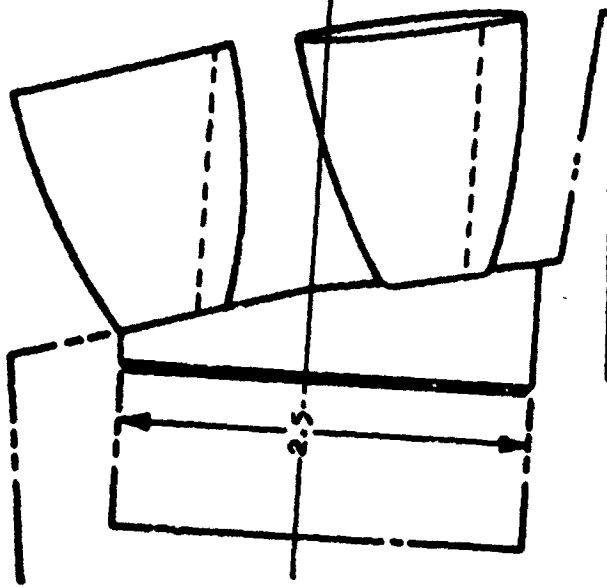
- Notes: 1. P_{B3}, P_{B4}, and P_{B5} were manifolded.
2. All dimensions in inches model scale.



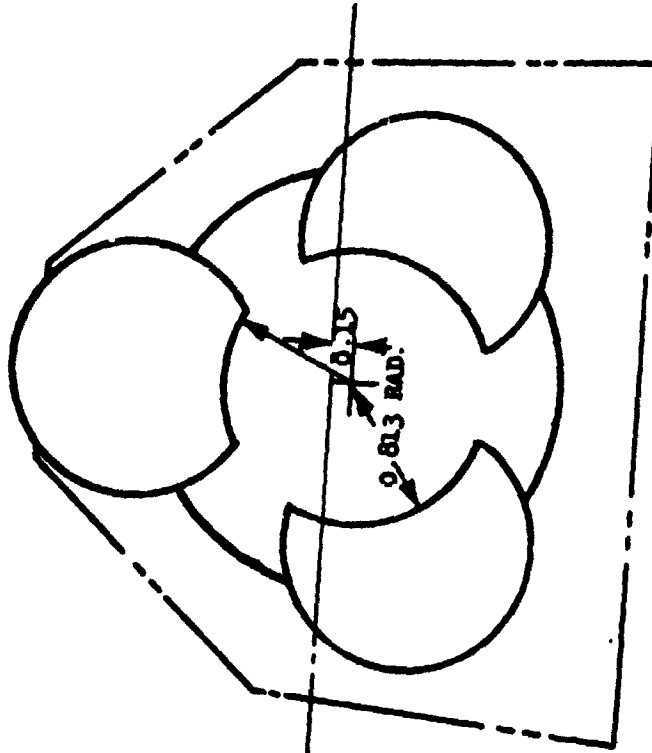
f. Base Pressure Locations

Figure 2. - Continued.

Note: All dimensions in
inches model scale



W.L. 6.000



9. Partial MRS Nozzles

Figure 2. - Concluded.

REPRODUCIBILITY OF THE
ORIGINAL PAGE IS POOR.

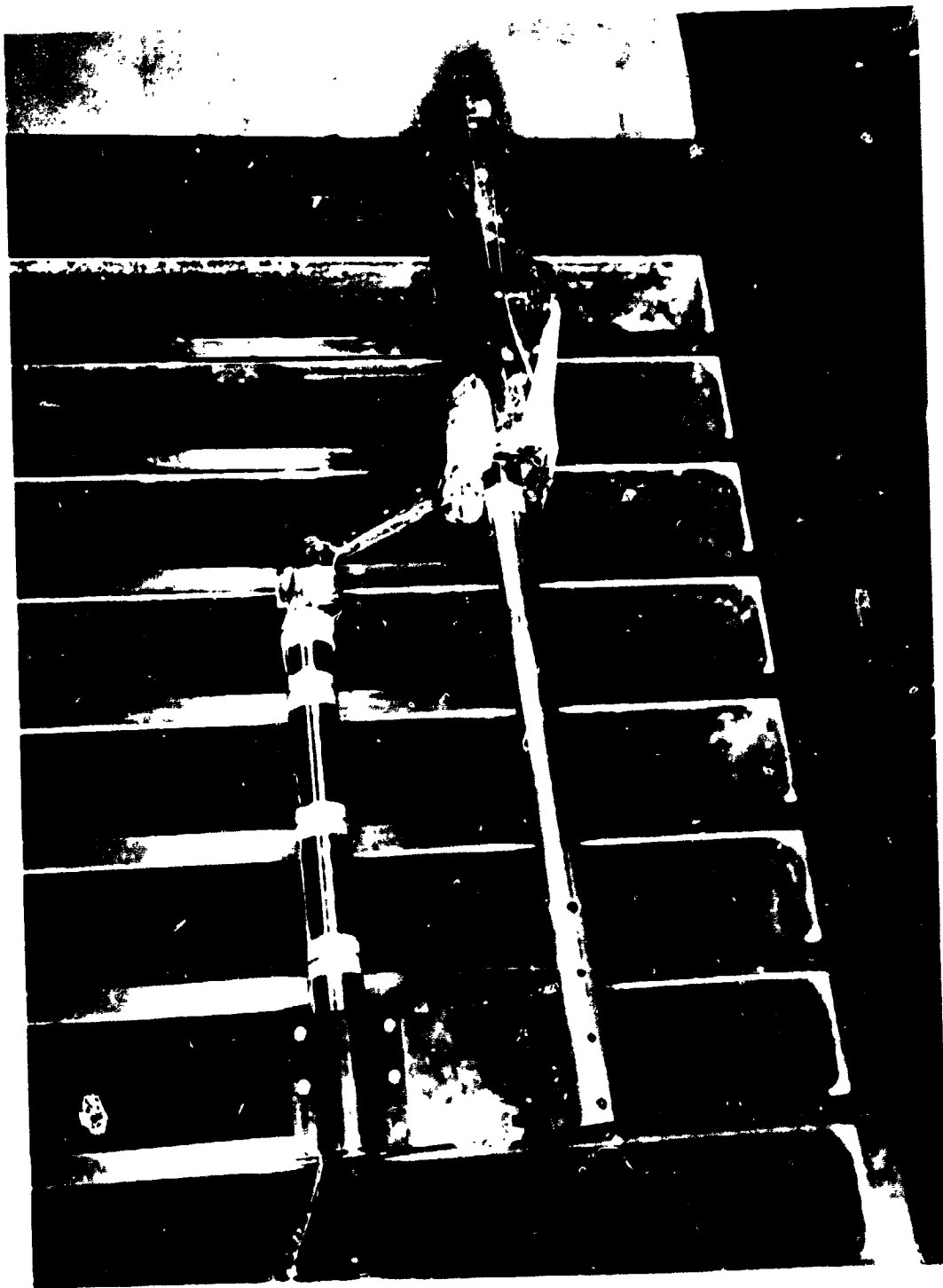


Figure 3. - Model installation photograph.

DATA FIGURES

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BDLAP	SPDBRK	ELEVON	REFERENCE INFORMATION
(EQ2101)	BA-208 LARC UPVT 1057 140 A/B DB8	.000	-11.700	54.920	.000	SREF 2690.0000 SQ.FT.
(EQ2104)	BA-208 LARC UPVT 1057 140 A/B DB8	.000	-16.300	54.920	15.000	LREF 1790.2700 INCHES
(EQ2105)	BA-208 LARC UPVT 1057 140 A/B DB8	.000	-11.700	54.920	-40.000	BREF 536.6300 INCHES
(EQ2107)	BA-208 LARC UPVT 1057 140 A/B DB8	.000	-11.700	54.920	15.000	XMRP 1076.7000 INCHES
(EQ2110)	BA-208 LARC UPVT 1057 140 A/B DB8	.000	-16.300	54.920	15.000	YMRP .0000 INCHES
(EQ2106)	BA-208 LARC UPVT 1057 140 A/B DB8	.000	-11.700	54.920	-40.000	ZMRP 375.0000 INCHES
						SCALE .0150

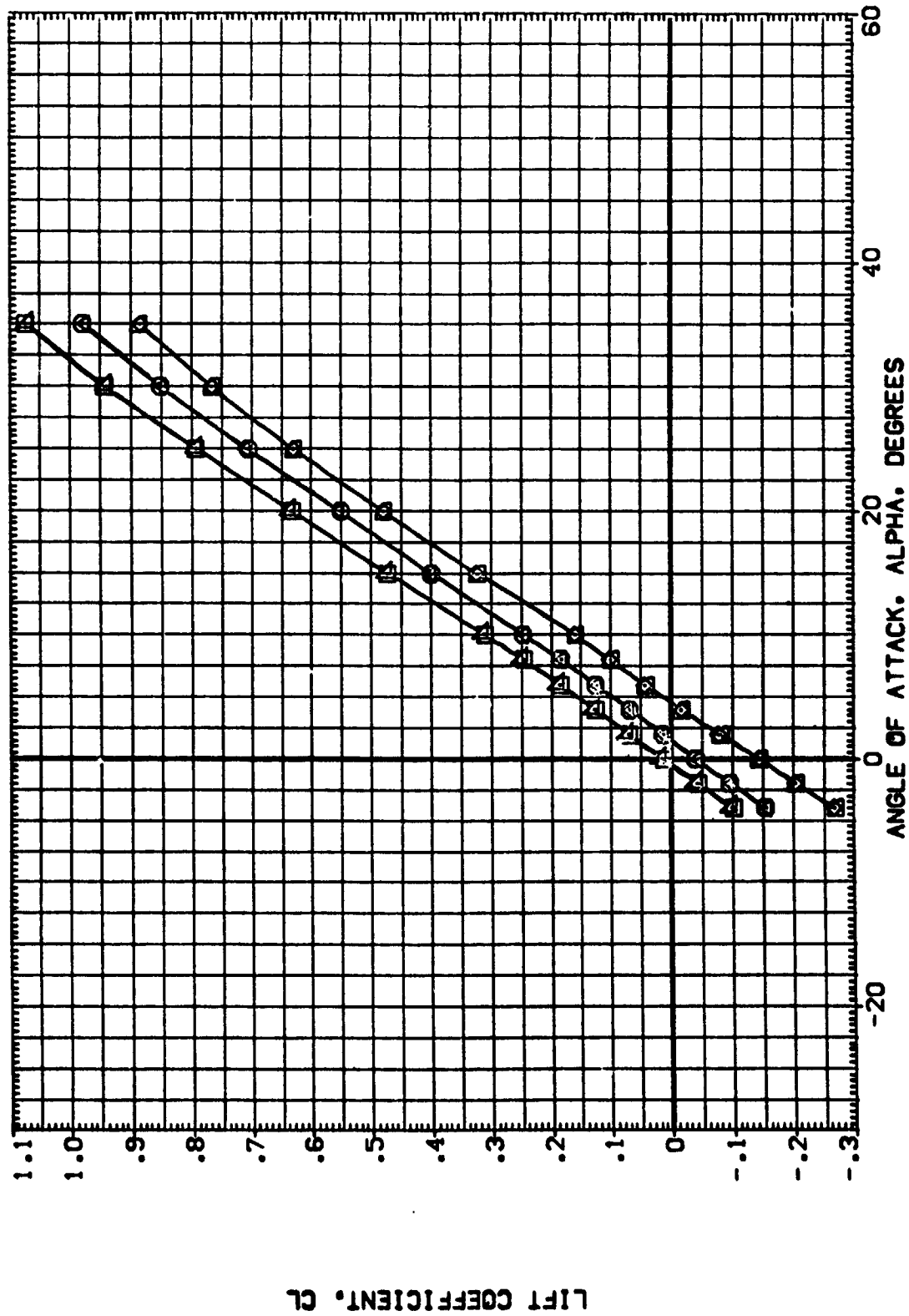


FIG. 4 LONGITUDINAL ELEVON EFFECTIVENESS

(A)MACH = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BOFLAP	SPOBRK	ELEVON	REFERENCE INFORMATION
(E02101)	GA-208 LARC UPVT 1057 140 A/B 5/8	.000	-11.700	54.920	.000	SREF 2650.0000 SQ.FT.
(E02104)	GA-208 LARC UPVT 1057 140 A/B 5/8	.000	-16.300	54.920	15.000	LREF 1250.3000 INCHES
(E02105)	GA-208 LARC UPVT 1057 140 A/B 5/8	.000	-11.700	54.920	-40.000	BREF 936.6000 INCHES
(E02107)	GA-208 LARC UPVT 1057 140 A/B 5/8	.000	-11.700	54.920	15.000	XMRP 1076.7000 INCHES
(E02110)	GA-208 LARC UPVT 1057 140 A/B 5/8	.000	-16.300	54.920	15.000	YMRP 375.0000 INCHES
(E02106)	GA-208 LARC UPVT 1057 140 A/B 5/8	.000	-11.700	54.920	-40.000	ZMRP 375.0000 INCHES
						SCALE .0150

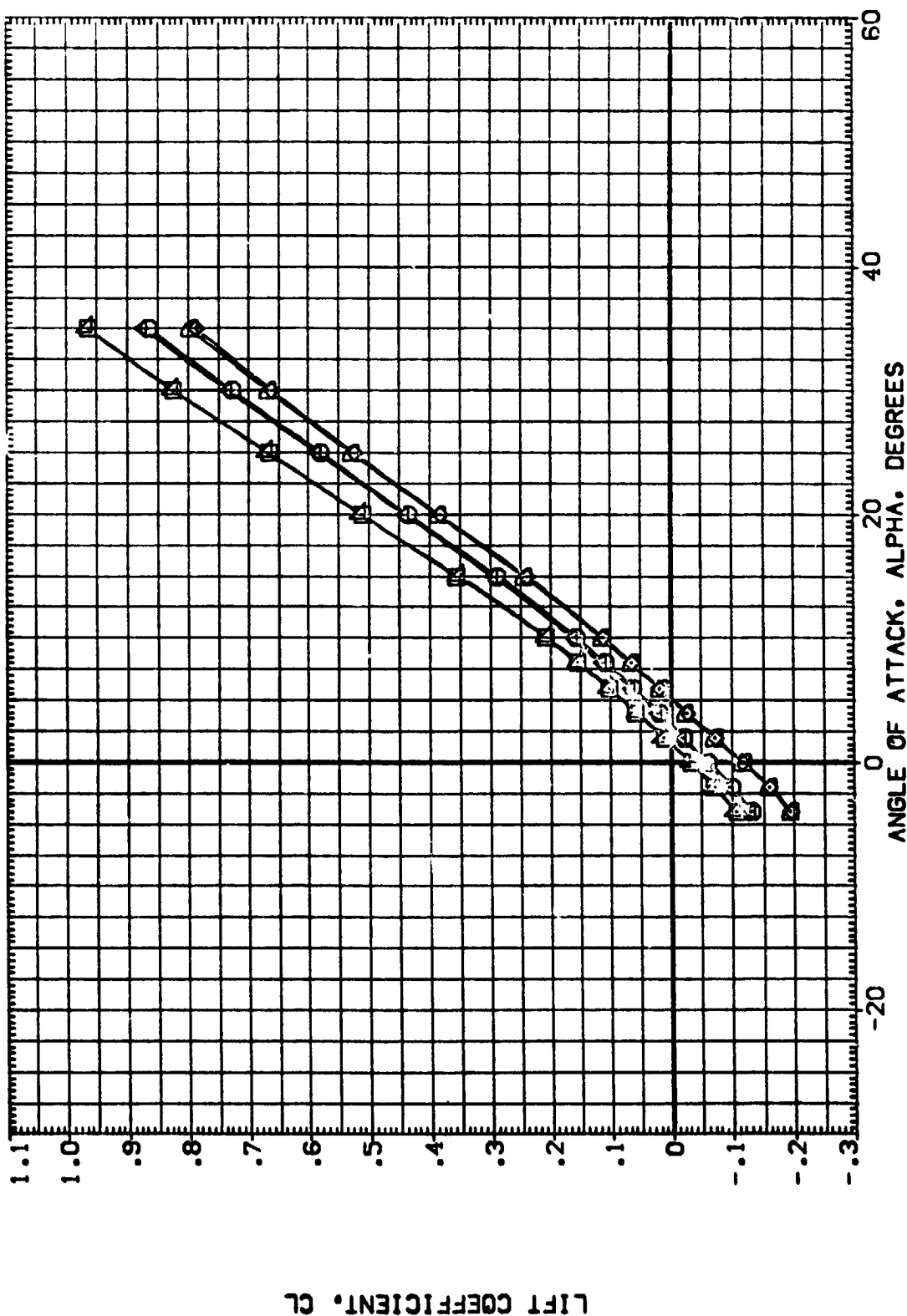


FIG. 4 LONGITUDINAL ELEVON EFFECTIVENESS

(B)MACH = 3.95

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BDFLAP	SPDRK	ELEVON	REFERENCE INFORMATION
(E02101)	GA-208 LARC UPVT 1057 140 A/B 088	.000	-11.700	54.520	.000	SREF 2690.0000 SQ.FT.
(E02104)	GA-208 LARC UPVT 1057 140 A/B 088	.000	-16.300	54.520	15.000	LREF 1290.3000 INCHES
(E02105)	GA-208 LARC UPVT 1057 140 A/B 088	.000	-11.700	54.520	-40.000	BREF 936.6800 INCHES
(E02107)	GA-208 LARC UPVT 1057 140 A/B 088	.000	-11.700	54.520	.000	XMRP 1076.7000 INCHES
(E02110)	GA-208 LARC UPVT 1057 140 A/B 088	.000	-16.300	54.520	15.000	YMRP .0000 INCHES
(E02106)	GA-208 LARC UPVT 1057 140 A/B 088	.000	-11.700	54.520	-40.000	ZMRP 375.0000 INCHES
						SCALE .0150

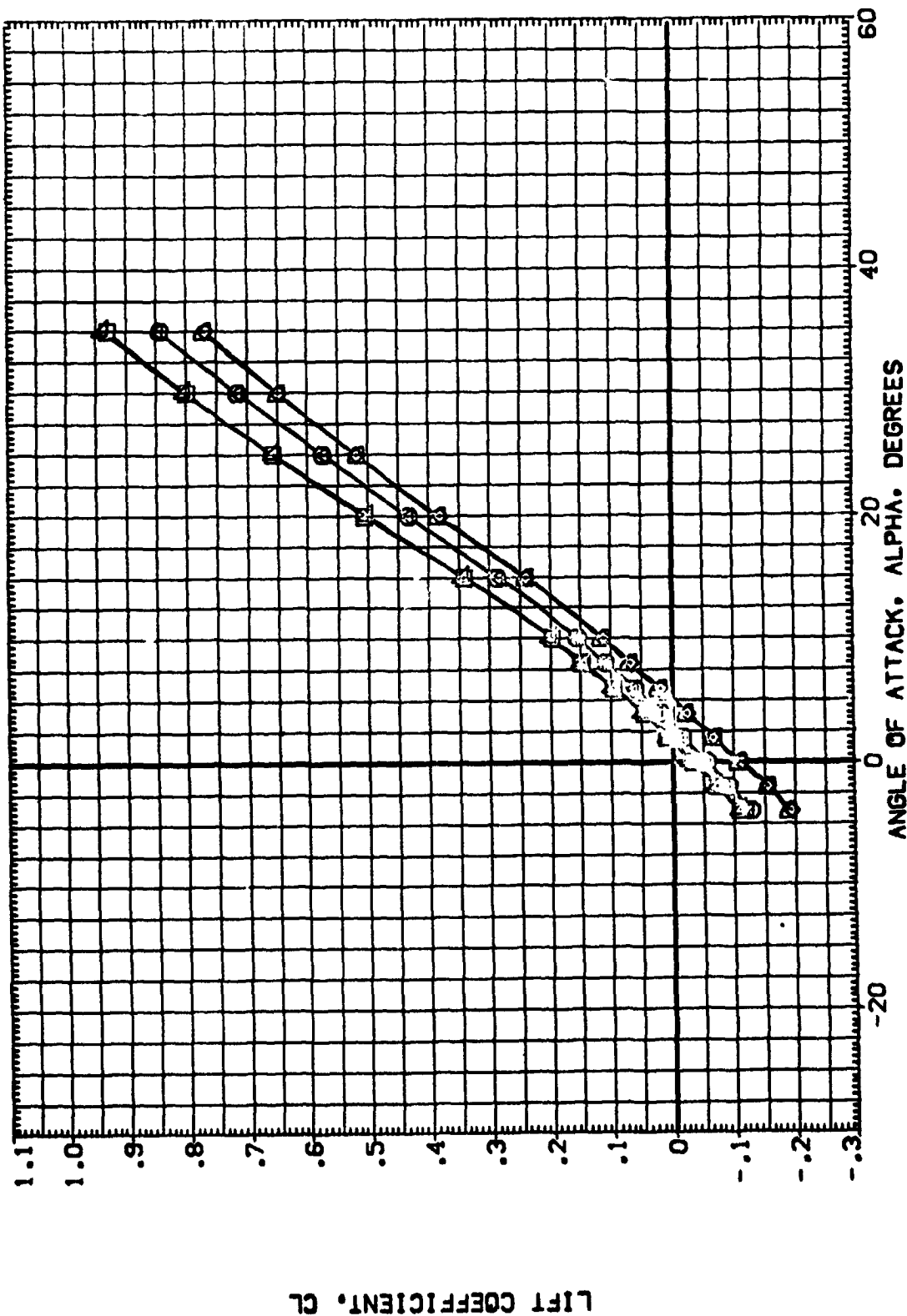


FIG. 4 LONGITUDINAL ELEVON EFFECTIVENESS

(C)MACH = 4.63

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BOFLAP	SPOBRK	ELEVON	REFERENCE INFORMATION	SO.FT.
(E02101)	BA-208 LARC UPVT 1057 140 A/B CR8	.000	-11.700	54.920	.000	SREF	2690.0000
(E02104)	BA-208 LARC UPVT 1057 140 A/B CR8	.000	16.300	54.920	15.000	LREF	1290.3000
(E02105)	BA-208 LARC UPVT 1057 140 A/B CR8	.000	-11.700	54.920	-40.000	BREF	936.6900
(E02107)	BA-208 LARC UPVT 1057 140 A/B CR8	.000	-11.700	54.920	.000	YMRP	1076.7000
(E02110)	BA-208 LARC UPVT 1057 140 A/B CR8	.000	16.300	54.920	15.000	ZMRP	375.0000
(E02106)	BA-208 LARC UPVT 1057 140 A/B CR8	.000	-11.700	54.920	-40.000	SCALE	.0150

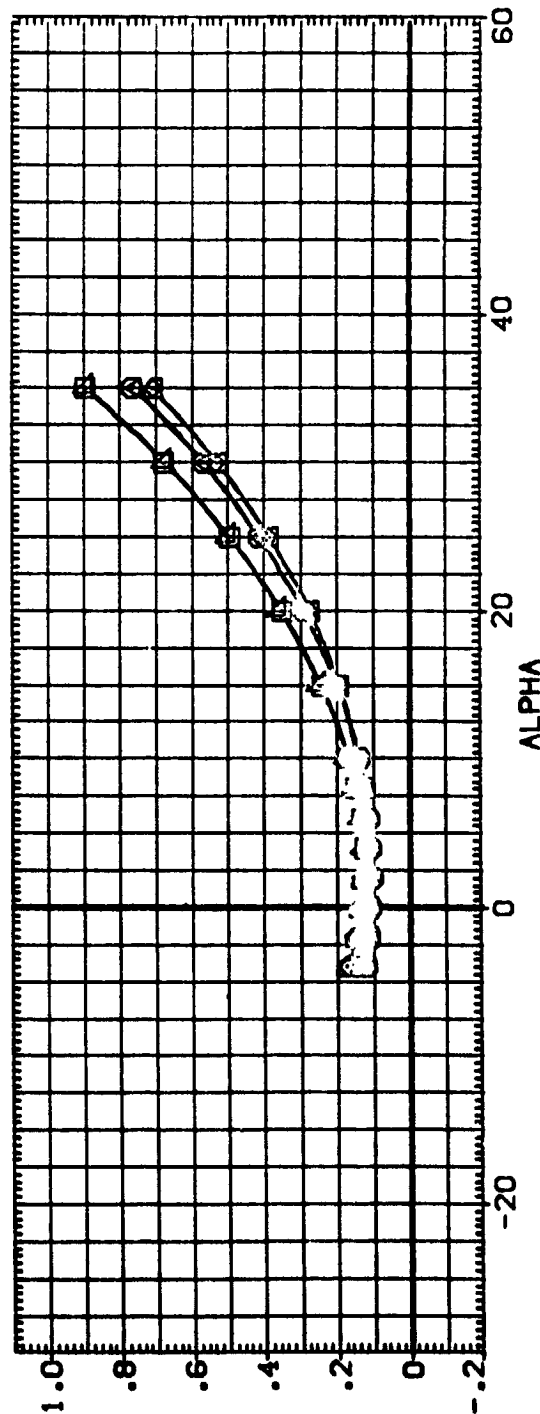
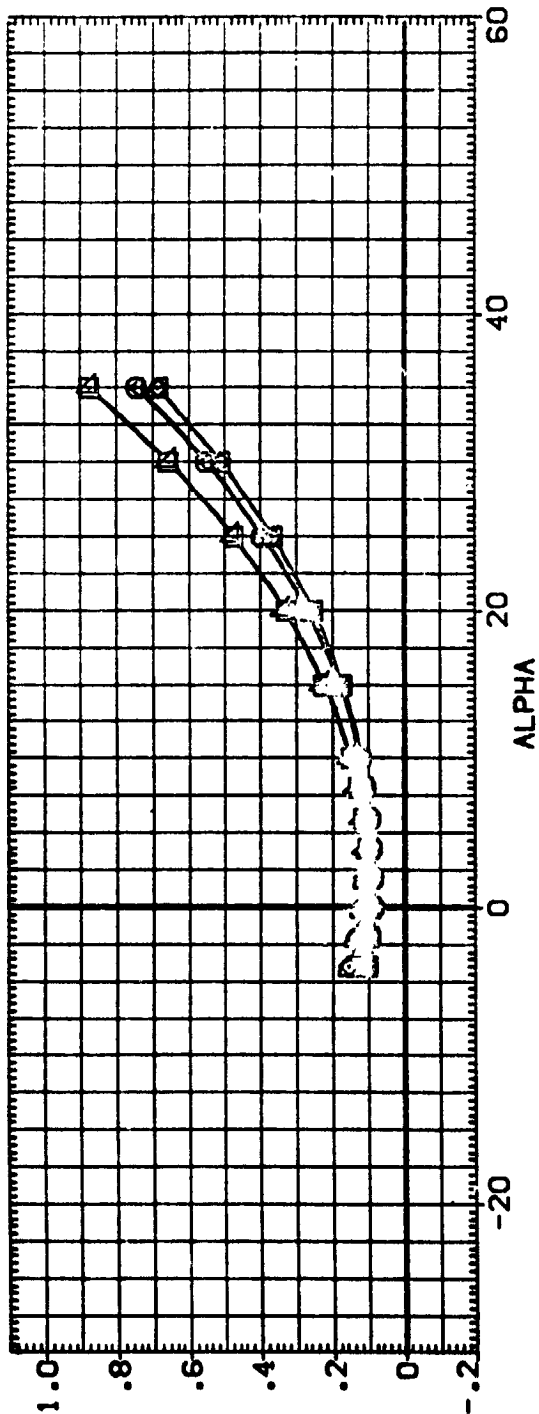


FIG. 4 LONGITUDINAL ELEVON EFFECTIVENESS

(A)MACH = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BOFLAP	SPDRK	ELEVON	REFERENCE INFORMATION
(ED2101)	BA-208 LARC UPVT 1057 140 A/B DRB +DUPPY STING	.000	-11.700	54.920	.000	SREF 2690.0000 50.FT.
(ED2104)	BA-208 LARC UPVT 1057 140 A/B DRB +DUPPY STING	.000	-16.300	54.920	15.000	LREF 1290.3000 INCHES
(ED2105)	BA-208 LARC UPVT 1057 140 A/B DRB +DUPPY STING	.000	-11.700	54.920	-40.000	BREF 936.6900 INCHES
(ED2107)	BA-208 LARC UPVT 1057 140 A/B DRB	.000	-11.700	54.920	15.000	XMRP 1076.7000 INCHES
(ED2110)	BA-208 LARC UPVT 1057 140 A/B DRB	.000	-16.300	54.920	15.000	ZMRP .0000 INCHES
(ED2106)	BA-208 LARC UPVT 1057 140 A/B DRB	.000	-11.700	54.920	-40.000	SCALE 375.0000 INCHES
						SCALE .0150

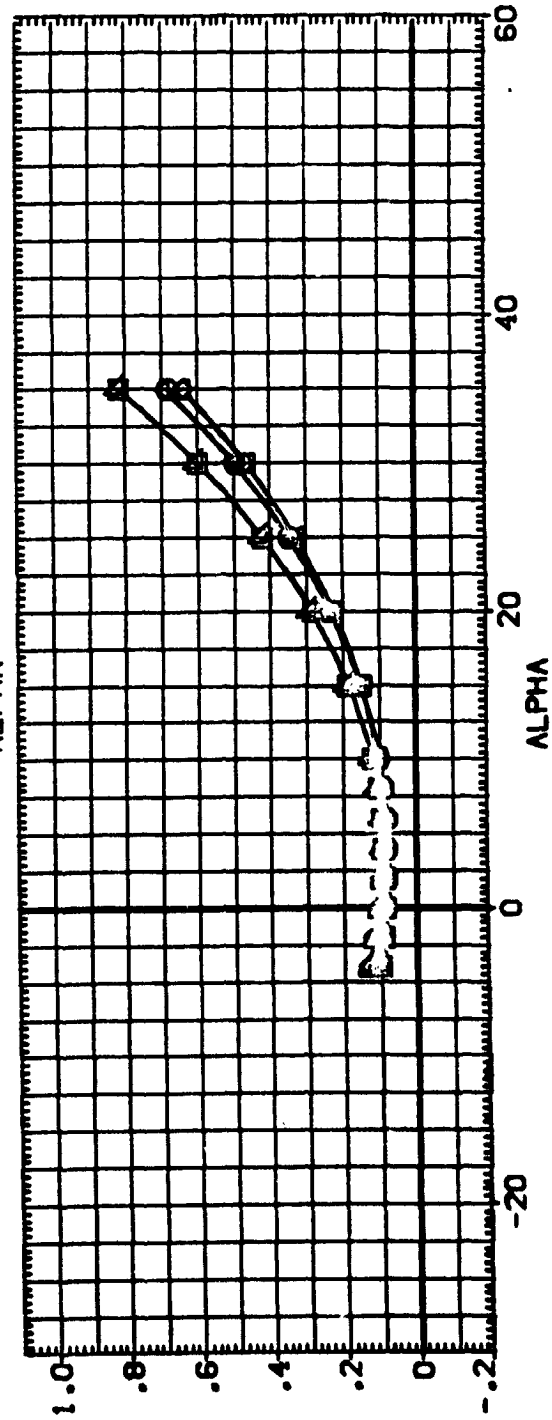
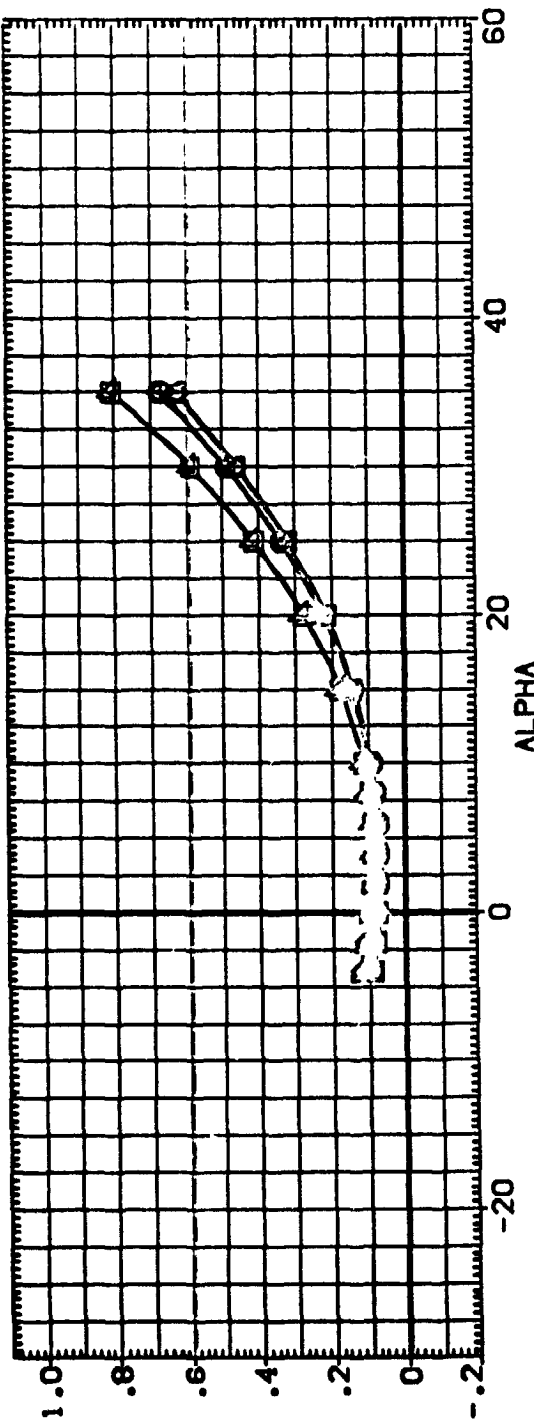


FIG. 4 LONGITUDINAL ELEVON EFFECTIVENESS

(B)MACH = 3.95

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BOFLAP	SPORBK	ELEVON	REFERENCE INFORMATION
(ED2101)	GA-208 LARC UPVT 1097 140 A/B 058	.000	-11.700	54.920	.000	SREF 2690.0000 SQ.FT.
(ED2104)	GA-208 LARC UPVT 1097 140 A/B 058	.000	-16.300	54.920	15.000	LREF 1290.3000 INCHES
(ED2105)	GA-208 LARC UPVT 1097 140 A/B 058	.000	-11.700	54.920	-40.000	BREF 936.5000 INCHES
(ED2107)	GA-208 LARC UPVT 1097 140 A/B 058	.000	-11.700	54.920	.000	XPBP 1076.7000 INCHES
(ED2110)	GA-208 LARC UPVT 1097 140 A/B 058	.000	-16.300	54.920	15.000	YMRP 375.0000 INCHES
(ED2106)	GA-208 LARC UPVT 1097 140 A/B 058	.000	-11.700	54.920	-40.000	ZMRP 375.0000 INCHES
						SCALE .0150

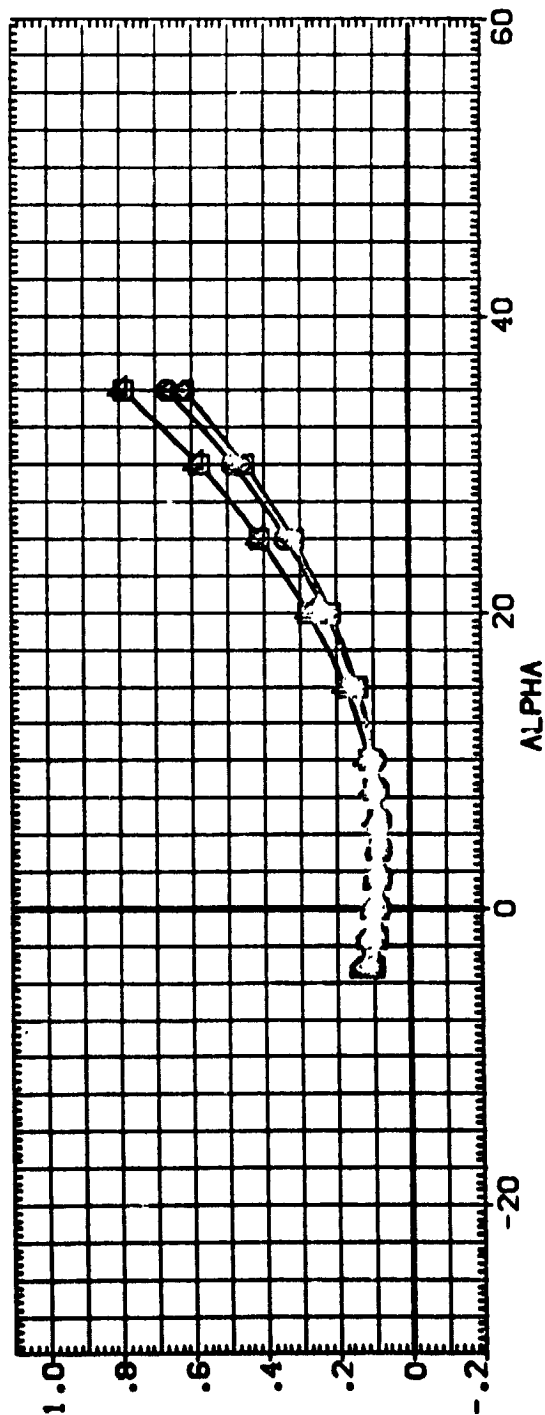
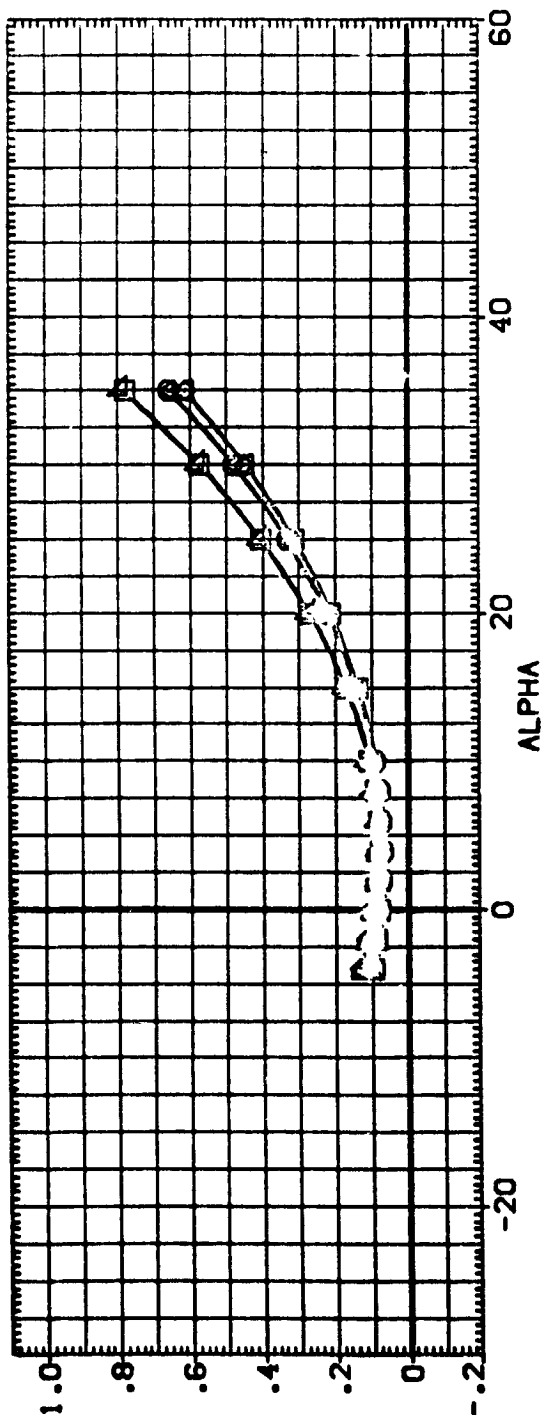


FIG. 4 LONGITUDINAL ELEVON EFFECTIVENESS
(C)MACH = 4.63

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BOFLAP	SPOBRK	ELEVON	REFERENCE INFORMATION
(E02101)	GA-208 LARC UPVT 1057 140 A/B DBB	.000	-11.700	54.920	.000	SREF 2650.0000 SO.FT.
(E02104)	GA-208 LARC UPVT 1057 140 A/B DBB	.000	-16.300	54.920	15.000	LREF 1250.3000 INO-ES
(E02105)	GA-208 LARC UPVT 1057 140 A/B DBB	.000	-11.700	54.920	-40.000	BREF 936.6500 INO-ES
(E02107)	GA-208 LARC UPVT 1057 140 A/B DBB	.000	-11.700	54.920	.000	XREF 1076.7000 INO-ES
(E02110)	GA-208 LARC UPVT 1057 140 A/B DBB	.000	-16.300	54.920	15.000	YREF .0000 INO-ES
(E02106)	GA-208 LARC UPVT 1057 140 A/B DBB	.000	-11.700	54.920	-40.000	ZREF 375.0000 INO-ES
						SCALE .0150

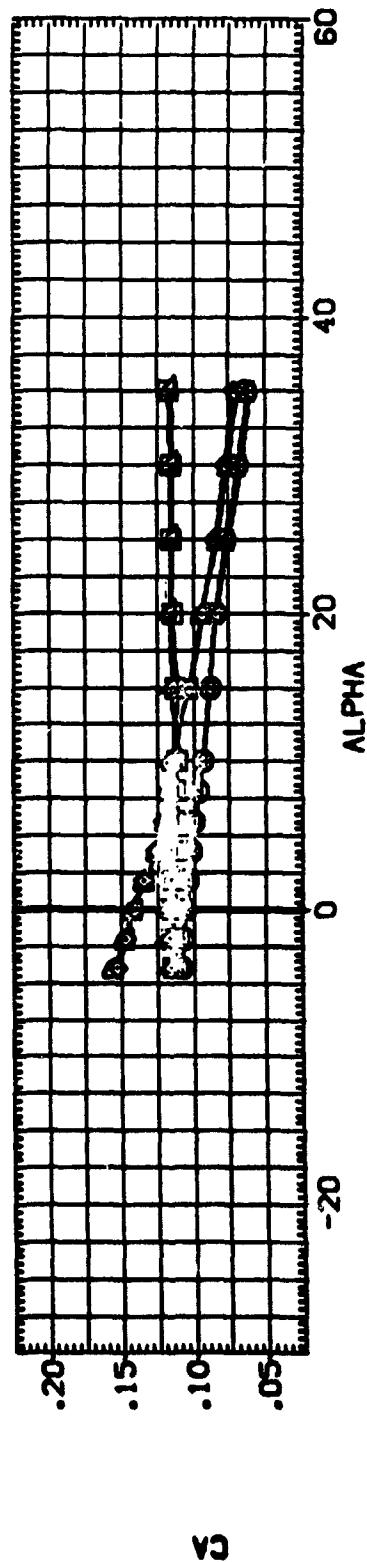
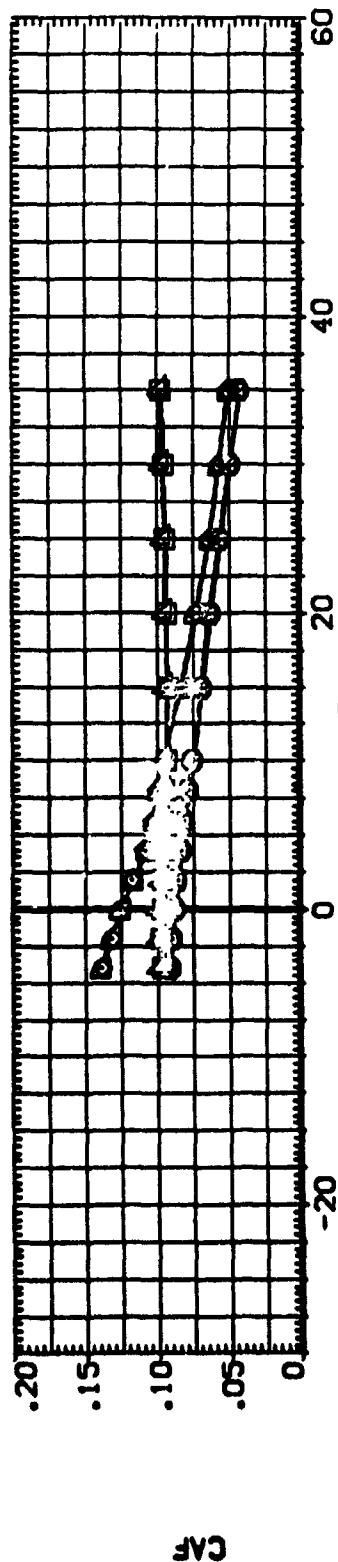
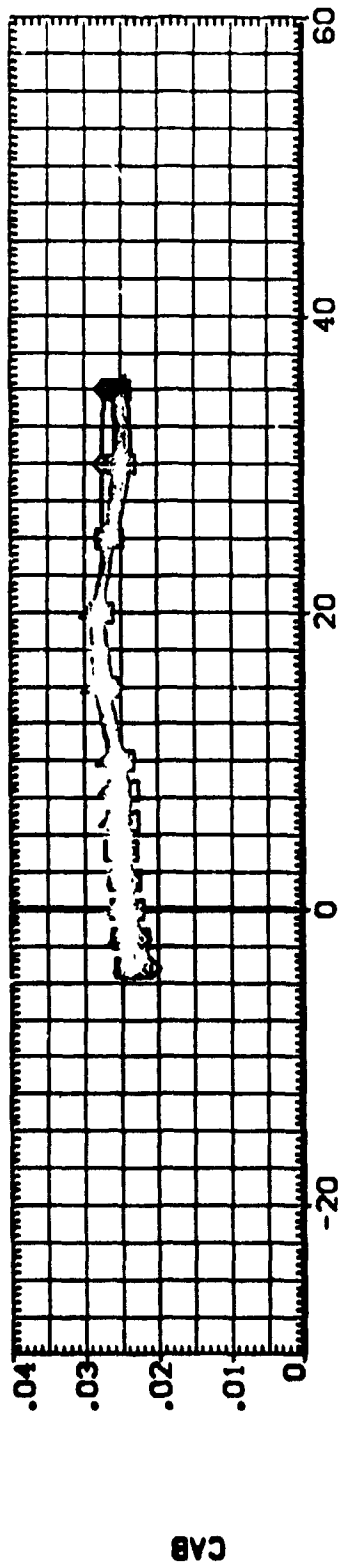


FIG. 4 LONGITUDINAL ELEVON EFFECTIVENESS

(A)MACH = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BOFLAP	SPDRBK	ELEVON	REFERENCE INFORMATION
(E02101)	DA-208 LARC UPVT 1057 140 A/B 098	.000	-11.700	54.520	.000	SREF 2690.0000 SQ.FT.
(E02104)	DA-208 LARC UPVT 1057 140 A/B 098	.000	-16.300	54.520	15.000	LREF 1290.3000 INO-ES
(E02105)	DA-208 LARC UPVT 1057 140 A/B 098	.000	-11.700	54.520	-40.000	BREF 936.6800 INO-ES
(E02107)	DA-208 LARC UPVT 1057 140 A/B 098	.000	-11.700	54.520	.000	YREF 1076.7000 INO-ES
(E02110)	DA-208 LARC UPVT 1057 140 A/B 098	.000	-16.300	54.520	15.000	ZREF .0000 INO-ES
(E02106)	DA-208 LARC UPVT 1057 140 A/B 098	.000	-11.700	54.520	-40.000	ZREF 375.0000 INO-ES
						SCALE .0150

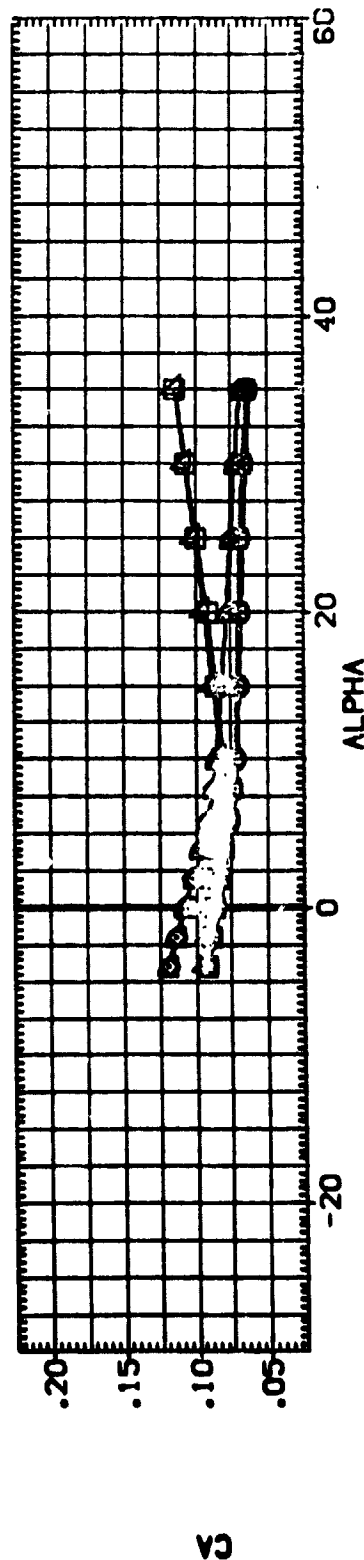
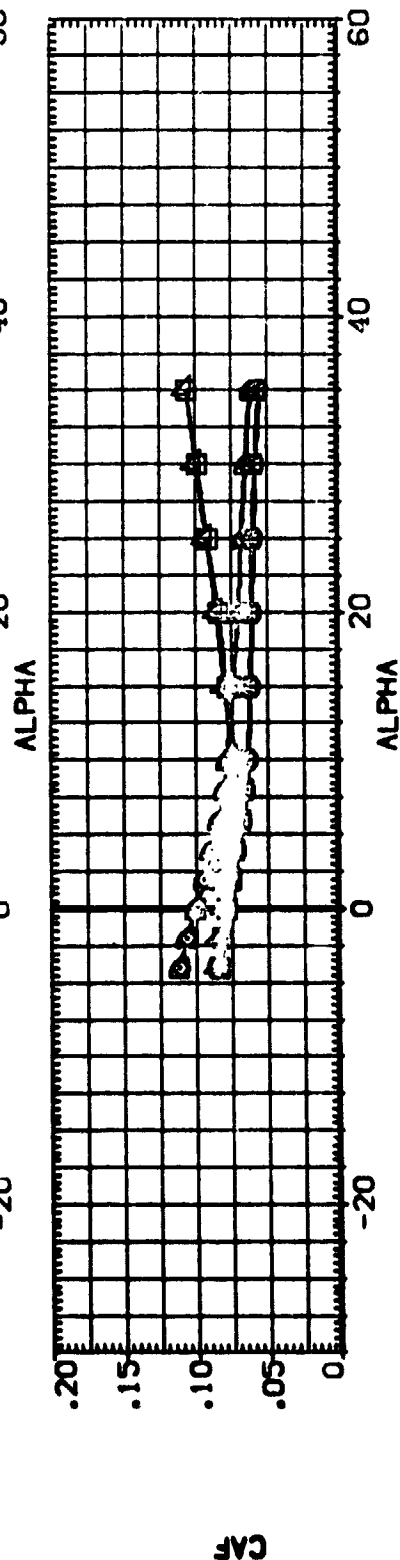
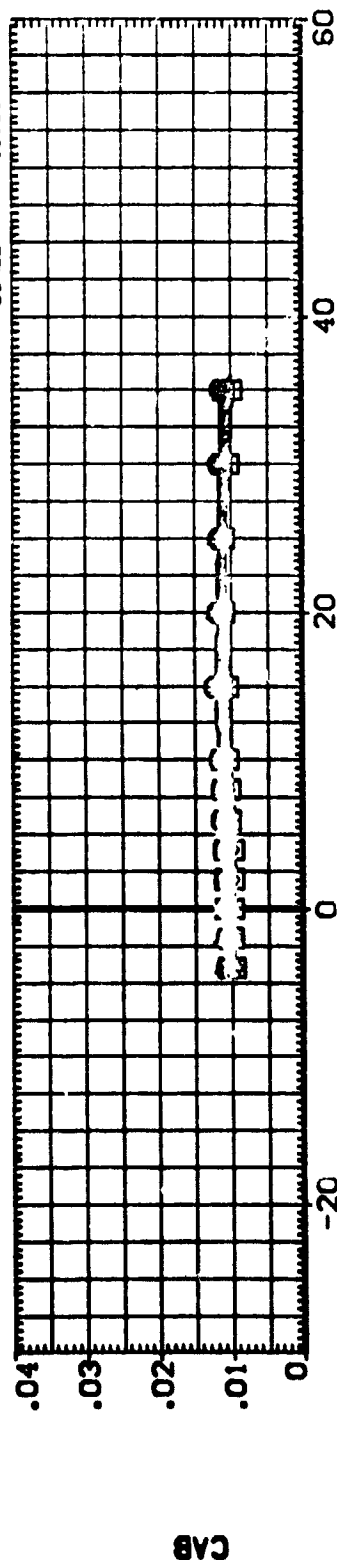


FIG. 4 LONGITUDINAL ELEVON EFFECTIVENESS

(B)MACH = 3.95



DATA SET	SEVER.	CONFIGURATION DESCRIPTION	BETA	BD FLAP	SPUSK	ELEVON	REFERENCE INFORMATION
{E02101}	000	8A-208 LARC UPVT 1087 140 A/B 088	.000	-11.700	54.920	.000	SREF 2650.0000 SQ.FT.
{E02104}	000	8A-208 LARC UPVT 1087 140 A/B 088	.000	-16.700	54.920	15.000	LREF 1250.3000 INCHES
{E02105}	000	8A-208 LARC UPVT 1087 140 A/B 088	.000	-11.700	54.920	-40.000	SREF 936.6000 INCHES
{E02106}	000	8A-208 LARC UPVT 1087 140 A/B 088	.000	-11.700	54.920	15.000	XREF 1076.7000 INCHES
{E02110}	000	8A-208 LARC UPVT 1087 140 A/B 088	.000	-16.700	54.920	15.000	YREF 375.0000 INCHES
{E02108}	000	8A-208 LARC UPVT 1087 140 A/B 088	.000	-16.700	54.920	-40.000	ZREF .0150 SCALE

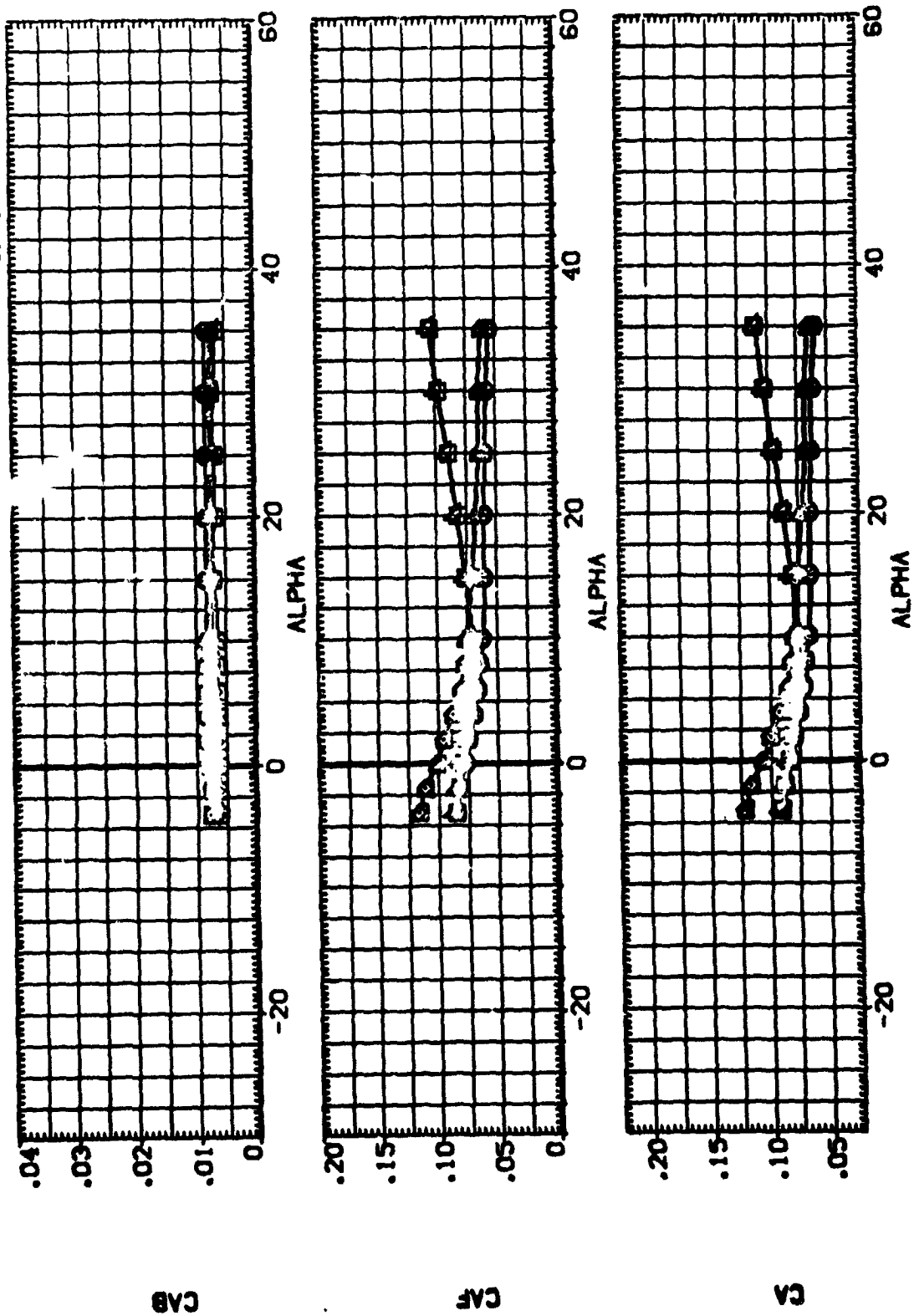
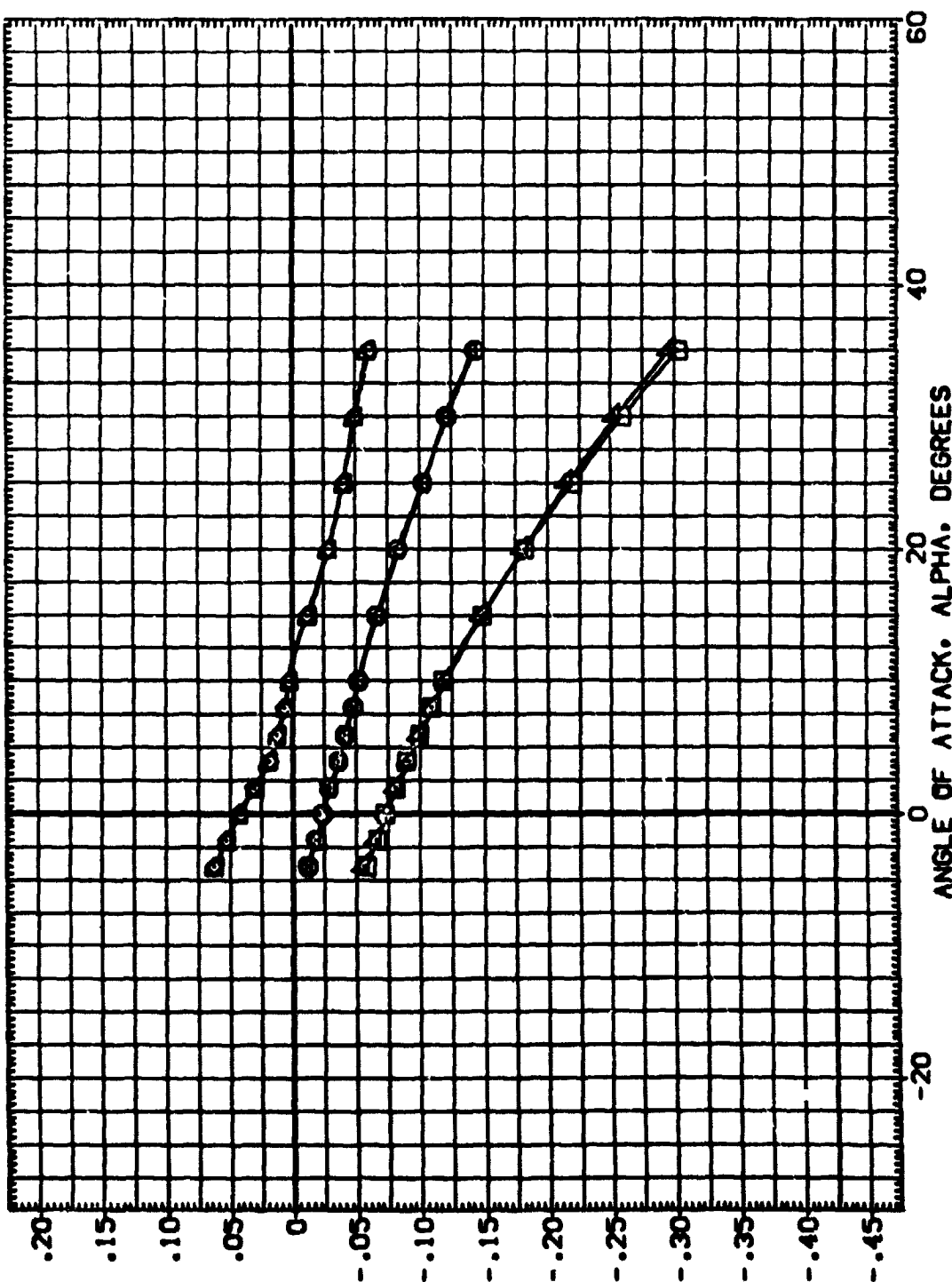


FIG. 4 LONGITUDINAL ELEVON EFFECTIVENESS

(C)MACH = 4.63

DATA SET SPEED. CONFIGURATION DESCRIPTION

DATA SET	SPEED	CONFIGURATION	DESCRIPTION	BETA	ED/LAP	SPURK	ELEVON	REFERENCE INFORMATION
ED2101	100	LAC	UPVT 100 100 100	.000	-11.700	54.520	.000	SREF 2650.0000 50.000
ED2104	100	LAC	UPVT 100 100 100	.000	-16.300	54.520	15.000	LREF 1250.3000 100.000
ED2105	100	LAC	UPVT 100 100 100	.000	-11.700	54.520	-40.000	BREF 936.6000 100.000
ED2107	100	LAC	UPVT 100 100 100	.000	-11.700	54.520	15.000	YREF 1076.7000 100.000
ED2110	100	LAC	UPVT 100 100 100	.000	-16.300	54.520	15.000	ZREF 375.0000 100.000
ED2108	100	LAC	UPVT 100 100 100	.000	-11.700	54.520	-40.000	SCALE .0150



PITCHING-MOMENT COEFFICIENT (MRP=65.0 PC BL), CLM/V0

FIG. 4 LONGITUDINAL ELEVON EFFECTIVENESS
(MACH = 2.50)

DATA SET	SHEET	CONFIGURATION DESCRIPTION	BETA	ED/LAP	SPORCK	ELEVON	REFERENCE INFORMATION
000101	01	0A-208 LANE UPT 1087 140 A/B 088	.000	-11.700	54.820	.000	REF 2080.0000 90.00
000102	02	0A-208 LANE UPT 1087 140 A/B 088	.000	-11.700	54.820	.000	REF 1750.0000 100.00
000103	03	0A-208 LANE UPT 1087 140 A/B 088	.000	-11.700	54.820	.000	REF 535.0000 100.00
000104	04	0A-208 LANE UPT 1087 140 A/B 088	.000	-11.700	54.820	.000	REF 1076.7010 100.00
000105	05	0A-208 LANE UPT 1087 140 A/B 088	.000	-11.700	54.820	.000	REF 375.0010 100.00
000106	06	0A-208 LANE UPT 1087 140 A/B 088	.000	-11.700	54.820	.000	SCALE .0150

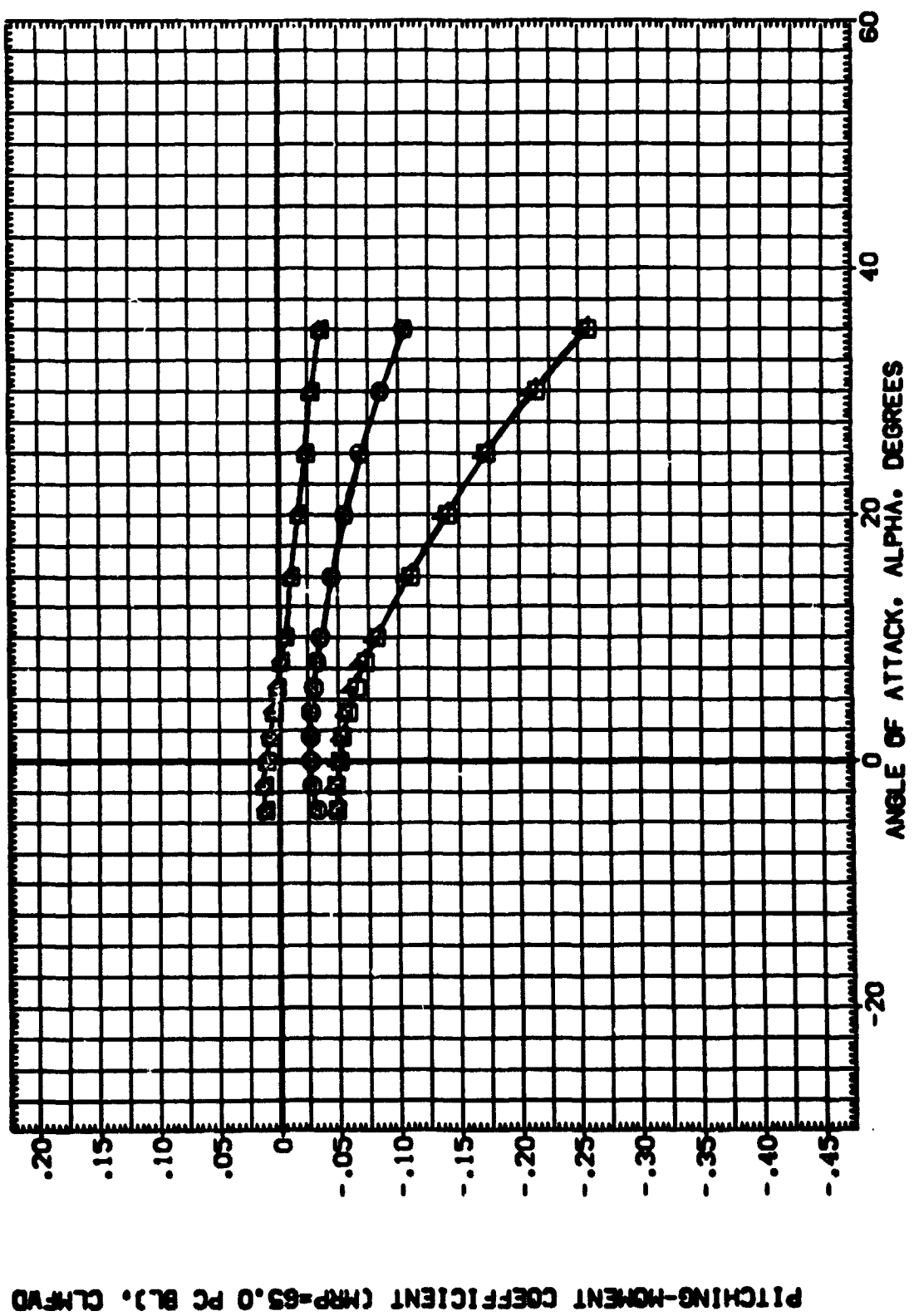


FIG. 4 LONGITUDINAL ELEVON EFFECTIVENESS

(B)MACH = 3.95

DATA SET SPEED CONFIGURATION DESCRIPTION

DATA SET	SPEED	CONFIGURATION	DESCRIPTION	BETA	BOFLAP	SPDBRK	ELEVON	REFERENCE INFORMATION
(E2101)	00040	0A-203	LARC UPVT 1037 140 A/B 033	.000	-11.700	54.920	.000	SREF 2690.0000 SQ.FT.
(E2102)	00040	0A-203	LARC UPVT 1037 140 A/B 033	.000	-11.700	54.920	15.000	LREF 1200.3000 INCHES
(E2103)	00040	0A-203	LARC UPVT 1037 140 A/B 033	.000	-11.700	54.920	-40.000	BREF 905.0000 INCHES
(E2104)	00040	0A-203	LARC UPVT 1037 140 A/B 033	.000	-11.700	54.920	15.000	XREF 1075.7000 INCHES
(E2105)	00040	0A-203	LARC UPVT 1037 140 A/B 033	.000	-11.700	54.920	15.000	YREF 375.0000 INCHES
(E2106)	00040	0A-203	LARC UPVT 1037 140 A/B 033	.000	-11.700	54.920	-40.000	ZREF 375.0000 INCHES
								SCALE .0150

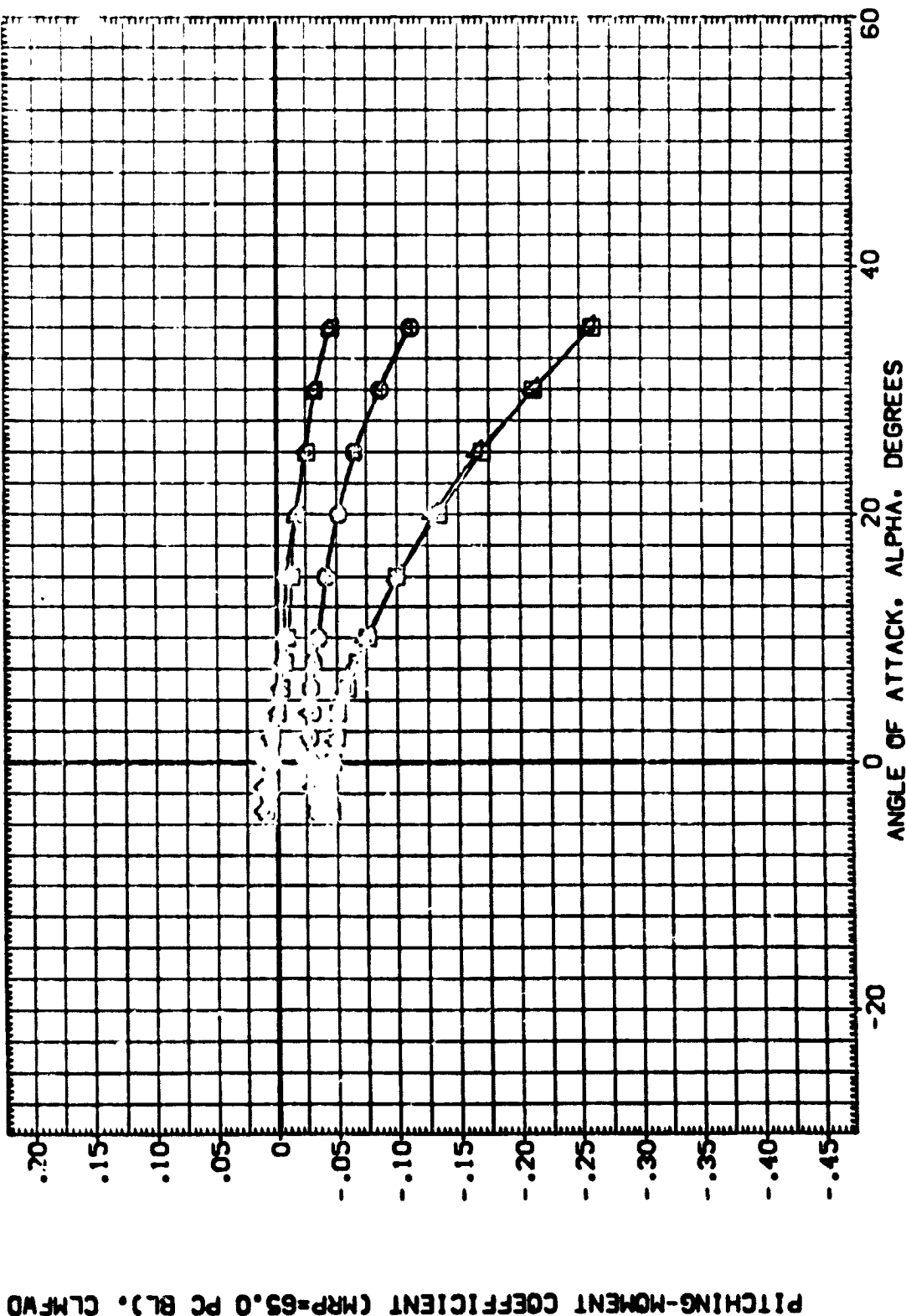


FIG. 4 LONGITUDINAL ELEVON EFFECTIVENESS

(C)MACH = 4.63

DATA SET	SHED	CONFIGURATION	DESCRIPTION	BETA	BOFLAP	SPDRK	ELEVON	REFERENCE INFORMATION
(E02101)	00040	0A-208	LARC	.000	-11.700	54.970	.000	SREF 2650.0000
(E02104)		0A-208	LARC	.000	-16.300	54.970	15.000	LREF 1250.0000
(E02105)		0A-208	LARC	.000	-11.700	54.970	-40.000	BREF 905.0000
(E02107)		0A-208	LARC	.000	-11.700	54.970	15.000	XMRP 1075.0000
(E02110)		0A-208	LARC	.000	-16.300	54.970	15.000	YMRP 375.0000
(E02115)		0A-208	LARC	.000	-11.700	54.970	-40.000	ZMRP 375.0000
								SCALE .0150

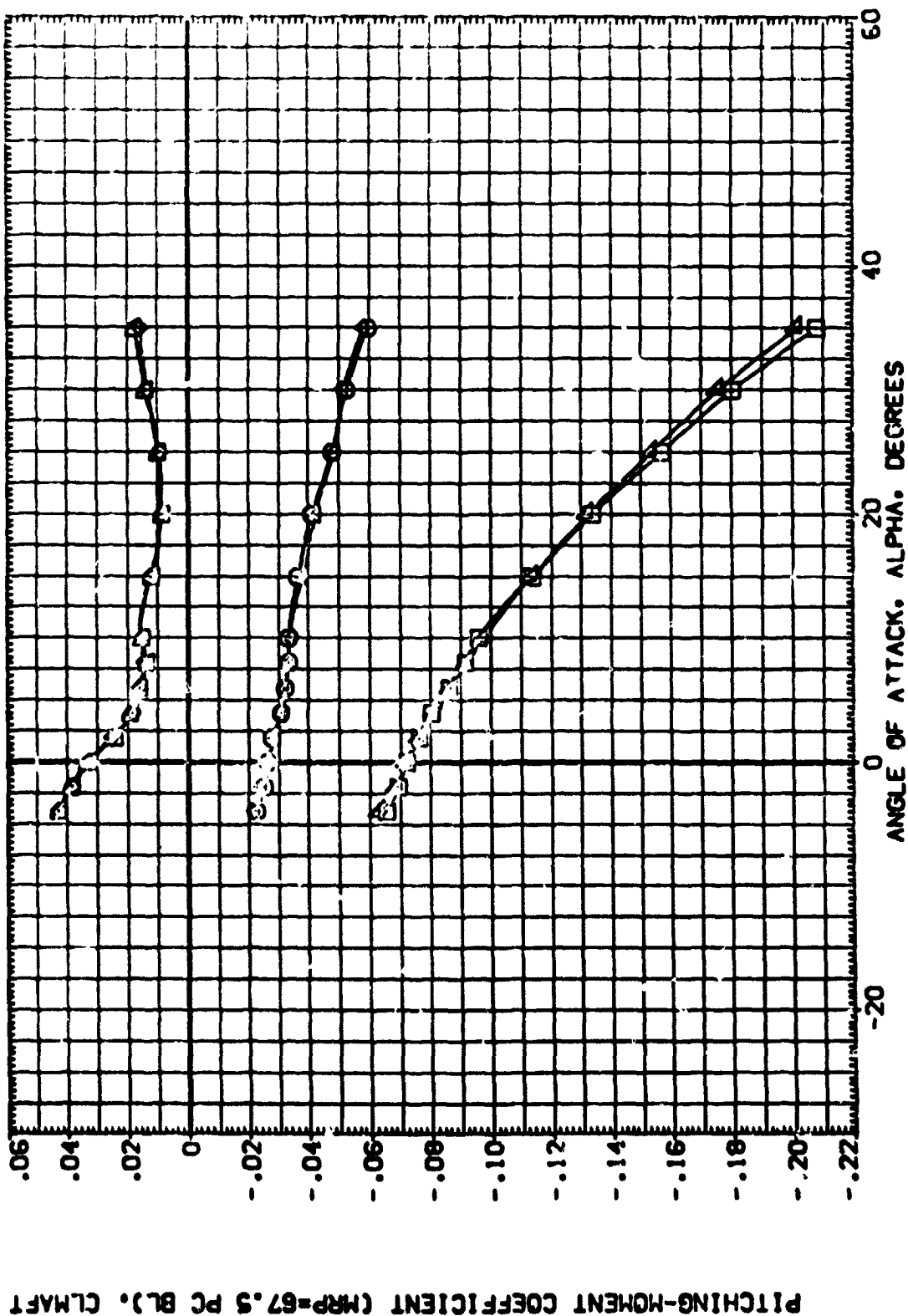


FIG. 4 LONGITUDINAL ELEVON EFFECTIVENESS

(A)MACH = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BDFLAP	SPDRBK	ELEVON	REFERENCE INFORMATION
(E02101)	0A-203 LARC UPVT 1057 140 A/B 0/0	.000	-11.700	54.920	.000	SREF 2650.0000 SQ.FT.
(E02104)	0A-203 LARC UPVT 1057 140 A/B 0/0	.000	-11.700	54.920	15.000	LREF 1250.3000 INCHES
(E02105)	0A-203 LARC UPVT 1057 140 A/B 0/0	.000	-11.700	54.920	-40.000	BREF 925.6000 INCHES
(E02107)	0A-203 LARC UPVT 1057 140 A/B 0/0	.000	-11.700	54.920	15.000	XVRP 1075.7000 INCHES
(E02110)	0A-203 LARC UPVT 1057 140 A/B 0/0	.000	-11.700	54.920	15.000	YVRP 375.0000 INCHES
(E02106)	0A-203 LARC UPVT 1057 140 A/B 0/0	.000	-11.700	54.920	-40.000	ZVRP 375.0000 INCHES
						SCALE .0150

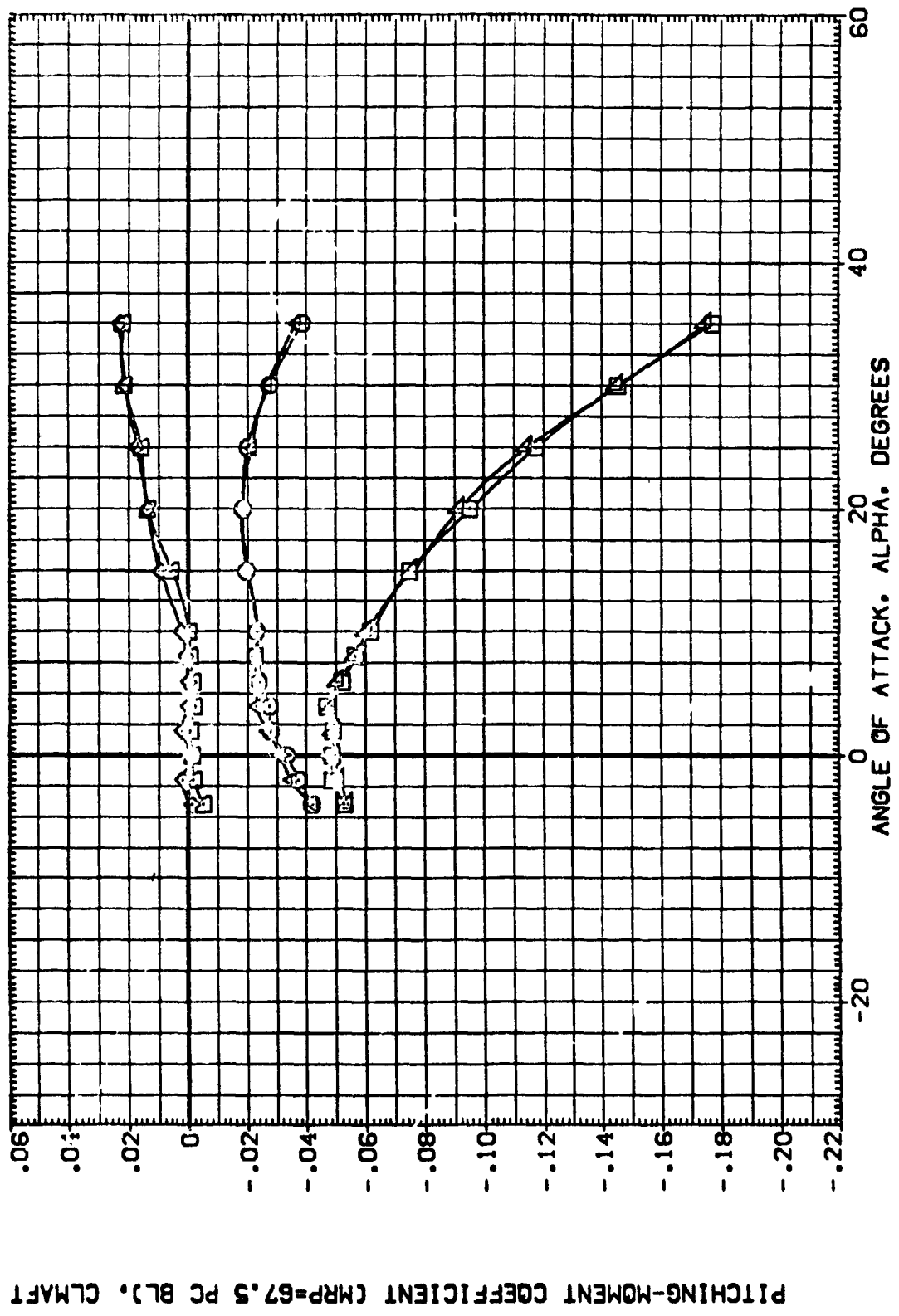


FIG. 4 LONGITUDINAL ELEVON EFFECTIVENESS
(C)MACH = 4.63

DATA SET SYMBOL	CONF	IGRATION	DESCRIPTION	BETA	LJFLAP	SPDBRK	ELEVON	REFERENCE INFORMATION
(E02101)	DA-203	LARC	UPVT 1097 140 A/B 078	.000	-11.700	54.920	.000	SREF 2690.0000 SQ.FT.
(E02104)	DA-203	LARC	UPVT 1097 140 A/B 078	.000	-11.700	54.920	.000	LREF 1200.0000 INCHES
(E02105)	DA-203	LARC	UPVT 1097 140 A/B 078	.000	-11.700	54.920	.000	BREF 910.0000 INCHES
(E02107)	DA-203	LARC	UPVT 1097 140 A/B 078	.000	-11.700	54.920	.000	XREF 1070.0000 INCHES
(E02110)	DA-203	LARC	UPVT 1097 140 A/B 078	.000	-11.700	54.920	.000	YREF 375.0000 INCHES
(E02106)	DA-203	LARC	UPVT 1097 140 A/B 078	.000	-11.700	54.920	.000	ZREF .0100 SCALE

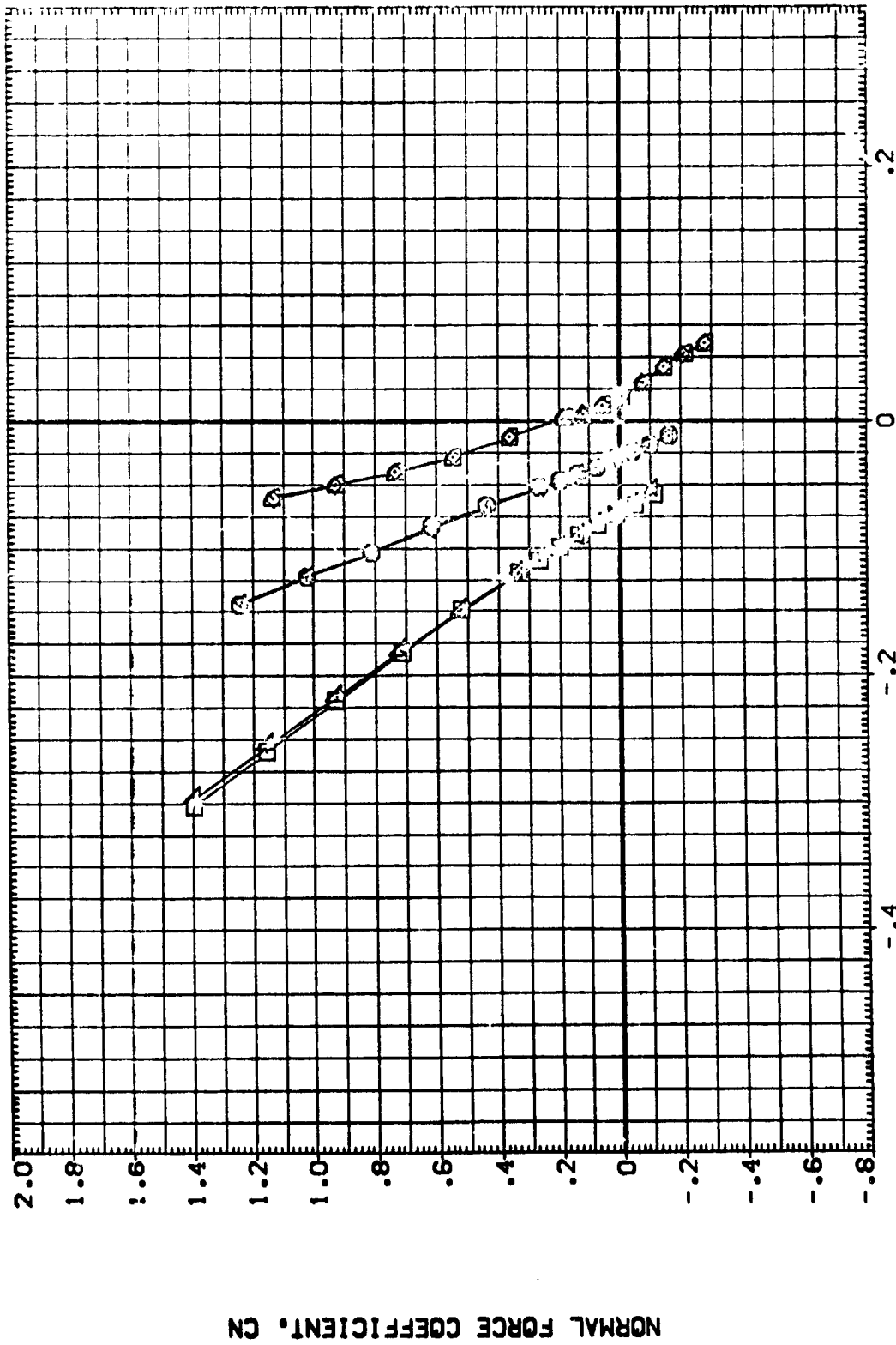
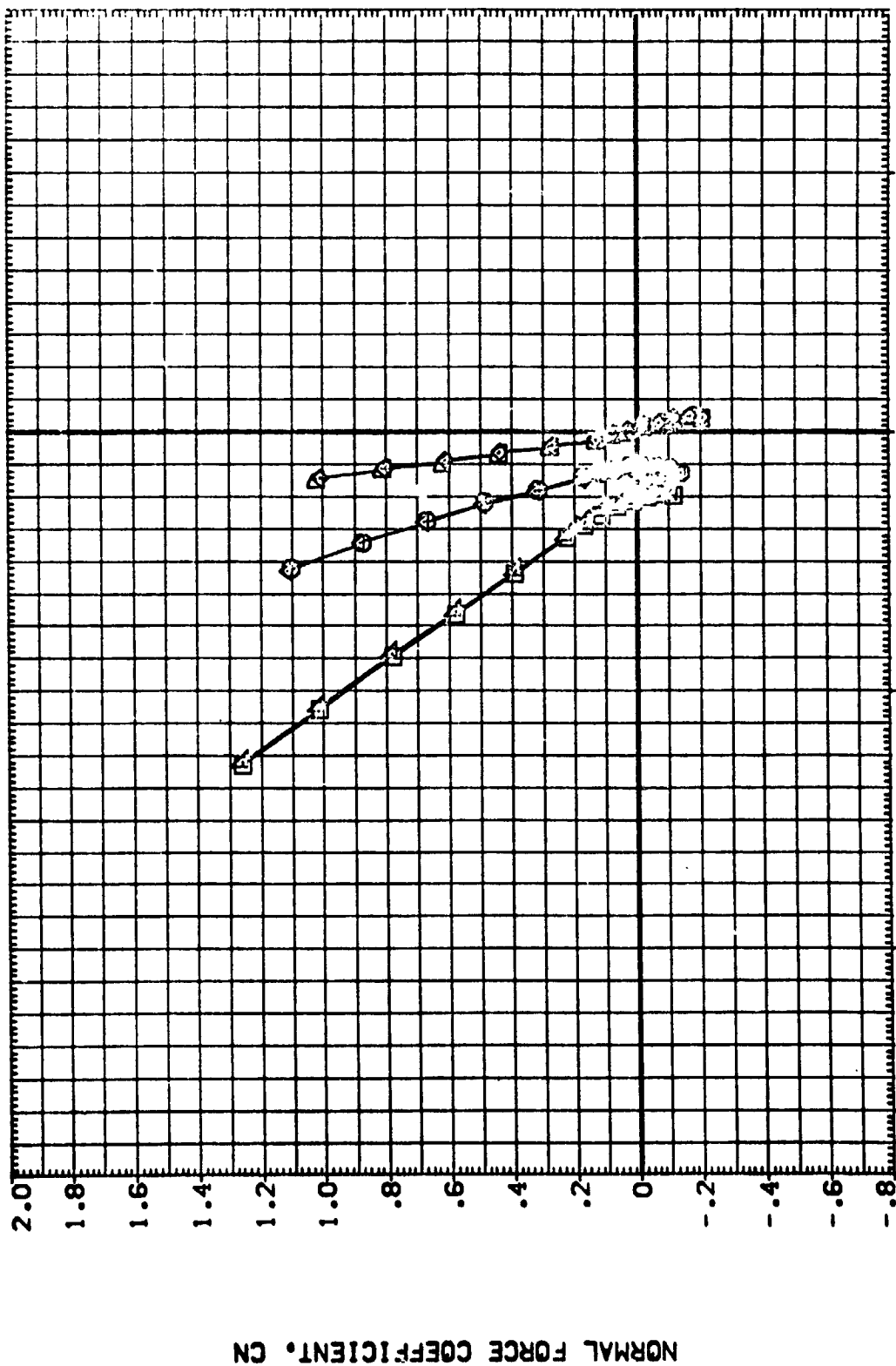


FIG. 4 LONGITUDINAL ELEVON EFFECTIVENESS

(A)MACH = 2.50

DATA SET	SYMBOL	CONFIGURATION	DESCRIPTION	BETA	BOFLAP	SPOBRK	ELEVON	REFERENCE INFORMATION
(EQ2101)	□	BA-208	LARC UPVT 1087 140 A/B 000	.000	-11.700	54.920	.000	SREF 2630.0000 SQ.FT.
(EQ2104)	□	BA-208	LARC UPVT 1087 140 A/B 000	.000	-11.700	54.920	15.000	LREF 1210.3000 INCHES
(EQ2105)	□	BA-208	LARC UPVT 1087 140 A/B 000	.000	-11.700	54.920	-40.000	BREF 925.0000 INCHES
(EQ2107)	□	BA-208	LARC UPVT 1087 140 A/B 000	.000	-11.700	54.920	15.000	XMRP 1075.7000 INCHES
(EQ2110)	□	BA-208	LARC UPVT 1087 140 A/B 000	.000	-11.700	54.920	15.000	YMRP .0000 INCHES
(EQ2106)	□	BA-208	LARC UPVT 1087 140 A/B 000	.000	-11.700	54.920	-40.000	ZMRP 375.0000 INCHES
								SCALE 1150

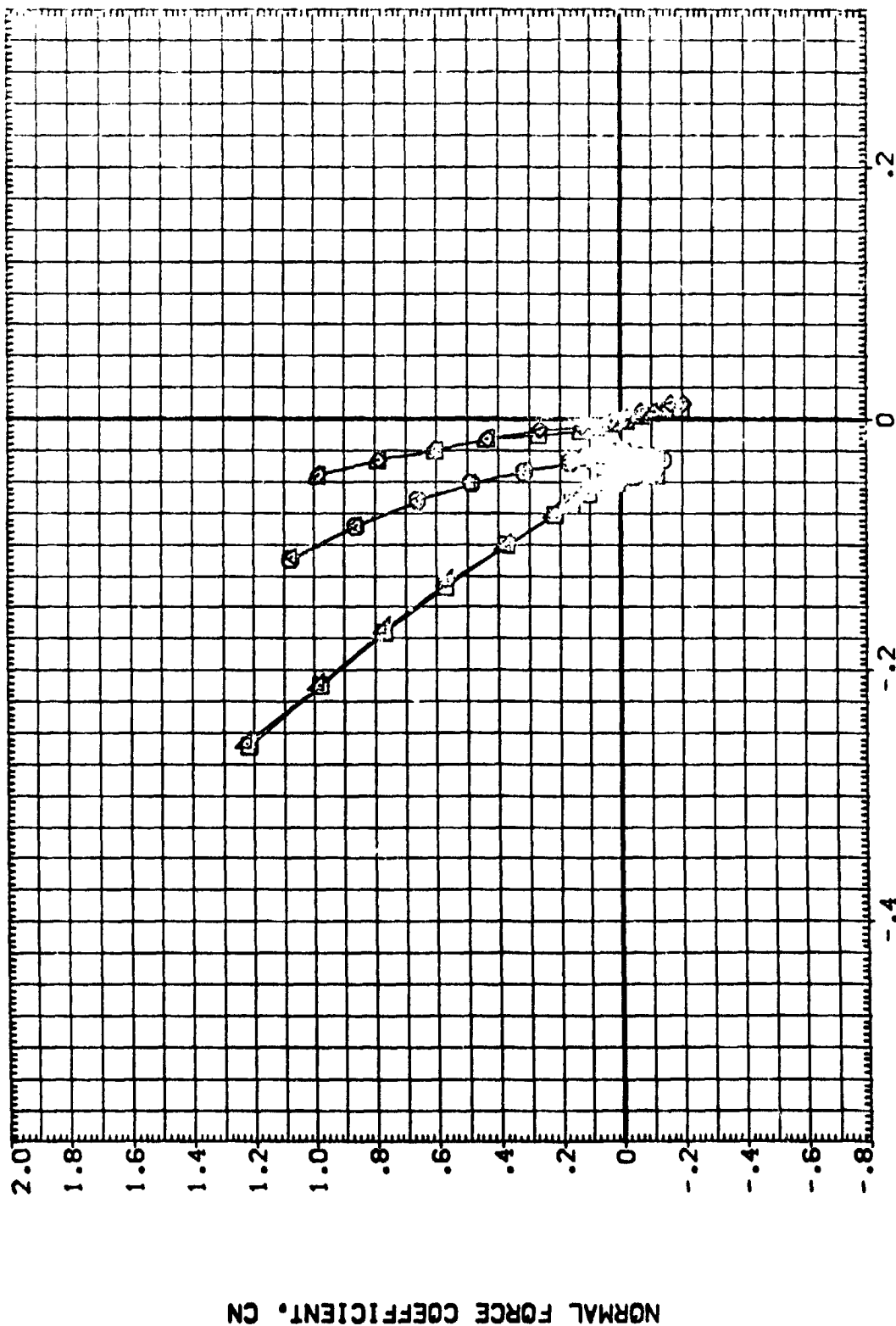


PITCHING-MOMENT COEFFICIENT (MRP=65.0 PC BL). CLMFWD

FIG. 4 LONGITUDINAL ELEVON EFFECTIVENESS

(B)MACH = 3.95

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BOFLAP	SPOBRK	ELEVON	REFERENCE INFORMATION
(E02101)	OA-203 LARC UPVT 1037 140 A/B 088	.000	-11.700	54.920	.000	SREF 2650.0000 SQ.FT.
(E02104)	OA-203 LARC UPVT 1037 140 A/B 083	.000	-16.300	54.920	15.000	LREF 1220.0000 INCHES
(E02105)	OA-203 LARC UPVT 1037 140 A/B 083	.000	-11.700	54.920	-40.000	BREF 923.0000 INCHES
(E02107)	OA-203 LARC UPVT 1037 140 A/B 083	.000	-11.700	54.920	.000	XREF 1076.0000 INCHES
(E02110)	OA-203 LARC UPVT 1037 140 A/B 083	.000	-16.300	54.920	15.000	YREF .0000 INCHES
(E02106)	OA-203 LARC UPVT 1037 140 A/B 088	.000	-11.700	54.920	-40.000	ZREF 375.0000 INCHES
						SCALE .0150

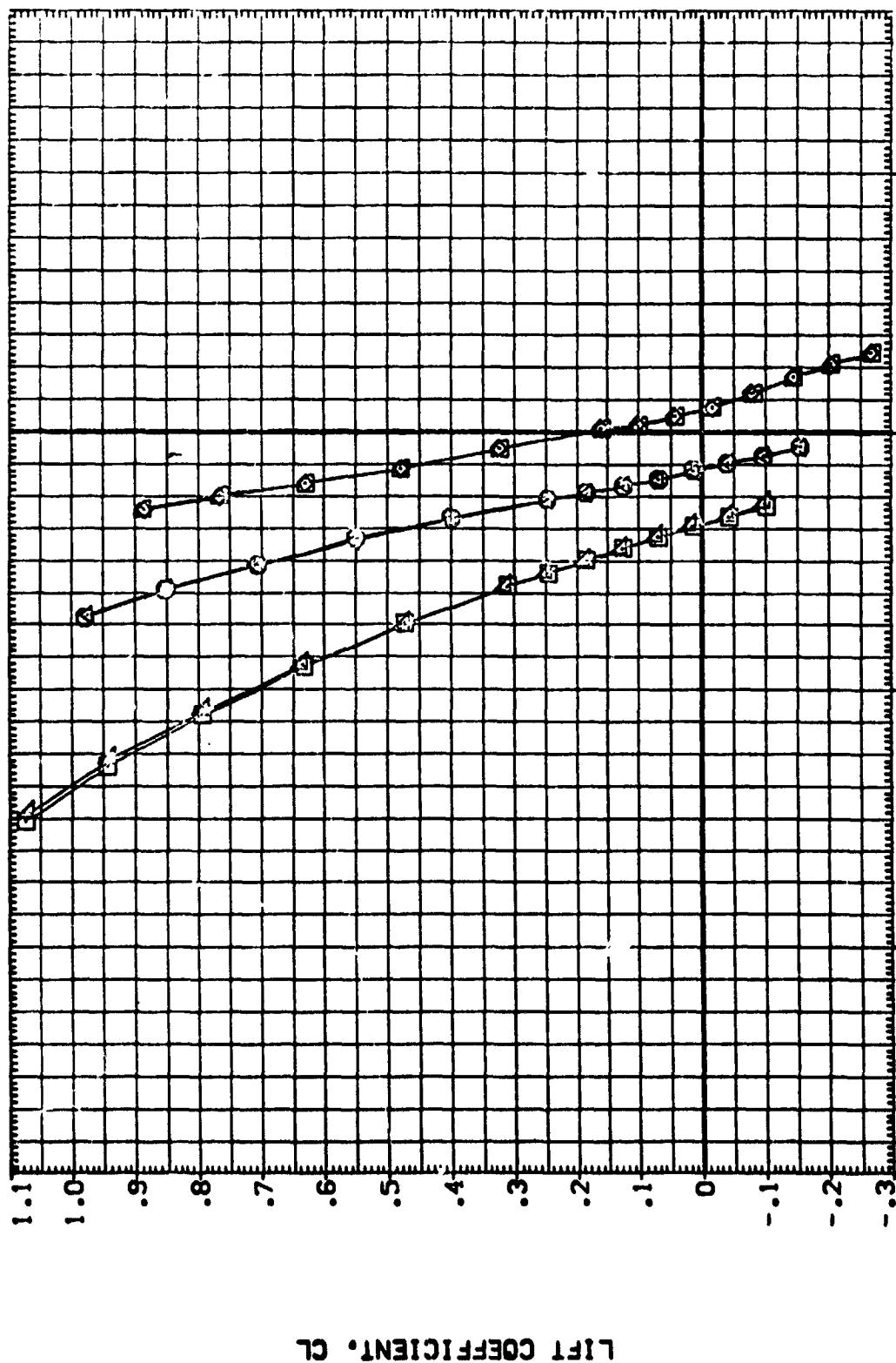


PITCHING-MOMENT COEFFICIENT (MRP=65.0 PC BL). CLMFWD

FIG. 4 LONGITUDINAL ELEVON EFFECTIVENESS

(C)MACH = 4.63

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BOFLAP	SPDRBK	ELEVON	REFERENCE INFORMATION
(E02101)	CA-203 LARC UPVT 1037 140 A/B 0R3	.000	-11.700	54.920	.000	SREF 2650.0000 SO.FT.
(E02104)	CA-203 LARC UPVT 1037 140 A/B 0R3	.000	-16.300	54.920	15.000	LREF 1200.0000 INCHES
(E02105)	CA-203 LARC UPVT 1037 140 A/B 0R3	.000	-11.700	54.920	-40.000	BREF 925.0000 INCHES
(E02107)	CA-203 LARC UPVT 1037 140 A/B 0R3	.000	-11.700	54.920	15.000	XMRP 1075.7000 INCHES
(E02110)	CA-203 LARC UPVT 1037 140 A/B 0R3	.000	-16.300	54.920	15.000	YMRP .0000 INCHES
(E02106)	CA-203 LARC UPVT 1037 140 A/B 0R3	.000	-11.700	54.920	-40.000	ZMRP 375.0000 INCHES
						SCALE .0150



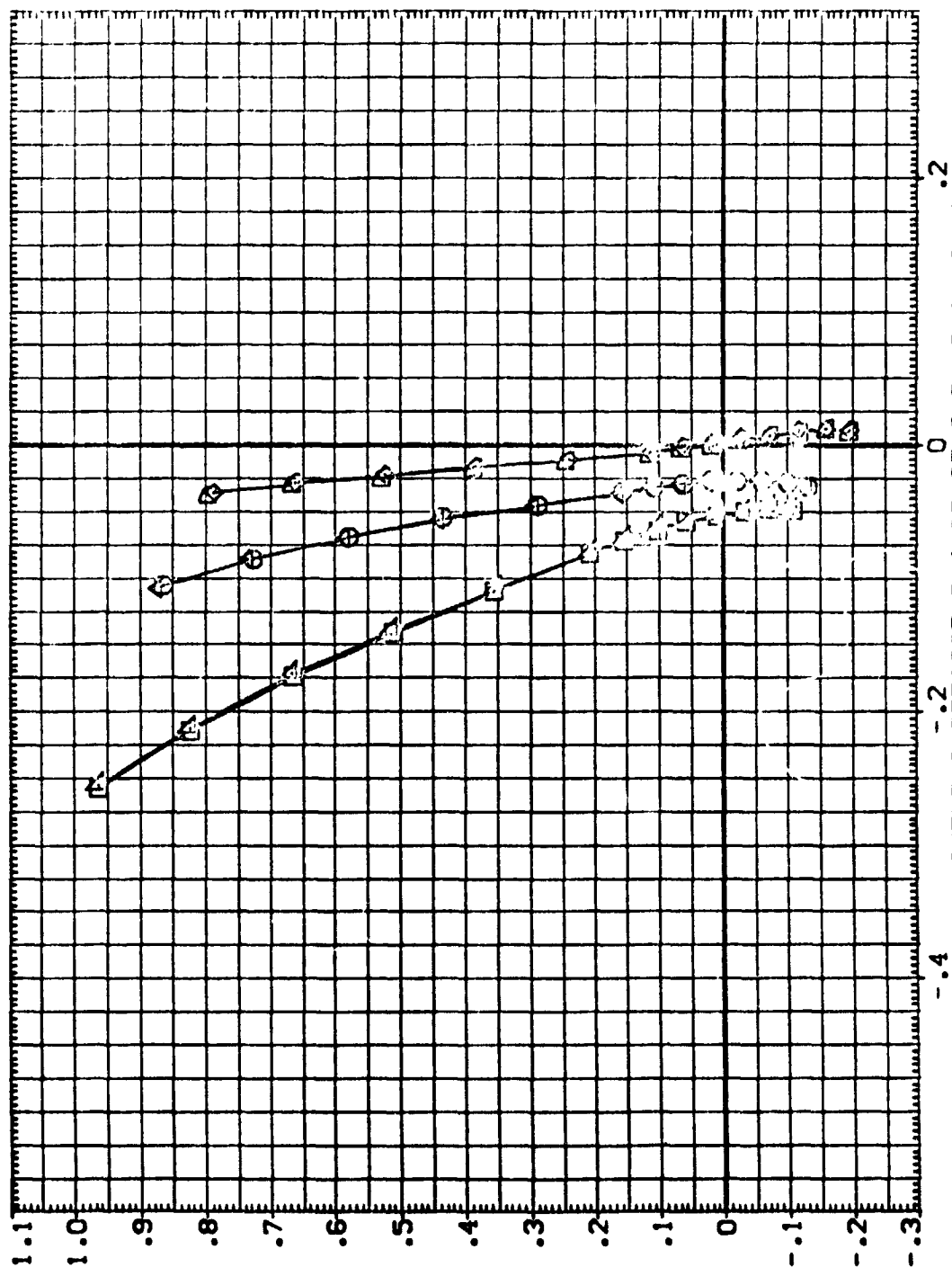
PITCHING-MOMENT COEFFICIENT (MRP=65.0 PC BL). CLMFWD

FIG. 4 LONGITUDINAL ELEVON EFFECTIVENESS

(M)MACH = 2.50



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BDLAP	SPDBRK	ELEVON	REFERENCE INFORMATION
(E02101)	0A-203 LARC UPVT 1097 140 A/B 0/8	.000	-11.700	54.920	.000	SREF 2050.0000
(E02104)	0A-203 LARC UPVT 1097 140 A/B 0/8	.000	-16.300	54.920	15.000	LREF 1200.0000
(E02105)	0A-203 LARC UPVT 1097 140 A/B 0/8	.000	-11.700	54.920	-40.000	EREF 1800.0000
(E02107)	0A-203 LARC UPVT 1097 140 A/B 0/8	.000	-11.700	54.920	15.000	XRFP 1070.0000
(E02110)	0A-203 LARC UPVT 1097 140 A/B 0/8	.000	-16.300	54.920	15.000	YRFP 1070.0000
(E02106)	0A-203 LARC UPVT 1097 140 A/B 0/8	.000	-11.700	54.920	-40.000	ZRFP 375.0000
						SCALE .0150



PITCHING-MOMENT COEFFICIENT (MRP=65.0 PC BL), CLMFWD

FIG. 4 LONGITUDINAL ELEVON EFFECTIVENESS

(B)MACH = 3.95

DATA SET SYMBO.	CONFIGURATION DESCRIPTION	BETA	BD FLAP	SPDRBK	ELEVON	REFERENCE INFORMATION
(E02101)	0A-203 LARC UPAT 1037 140 A/B 008	.000	-11.700	54.920	.000	SREF 2000.0000 SO.FT.
(E02104)	0A-203 LARC UPAT 1037 140 A/B 008	.000	-16.300	54.920	15.000	LREF 1000.0000 INCHES
(E02105)	0A-203 LARC UPAT 1037 140 A/B 008	.000	-11.700	54.920	-40.000	BREF 1000.0000 INCHES
(E02107)	0A-203 LARC UPAT 1037 140 A/B 008	.000	-11.700	54.920	15.000	XREF 1000.0000 INCHES
(E02110)	0A-203 LARC UPAT 1037 140 A/B 008	.000	-16.300	54.920	15.000	YREF 1000.0000 INCHES
(E02106)	0A-203 LARC UPAT 1037 140 A/B 008	.000	-11.700	54.920	-40.000	ZREF 1000.0000 INCHES
						SCALE 375.0150 SCALE

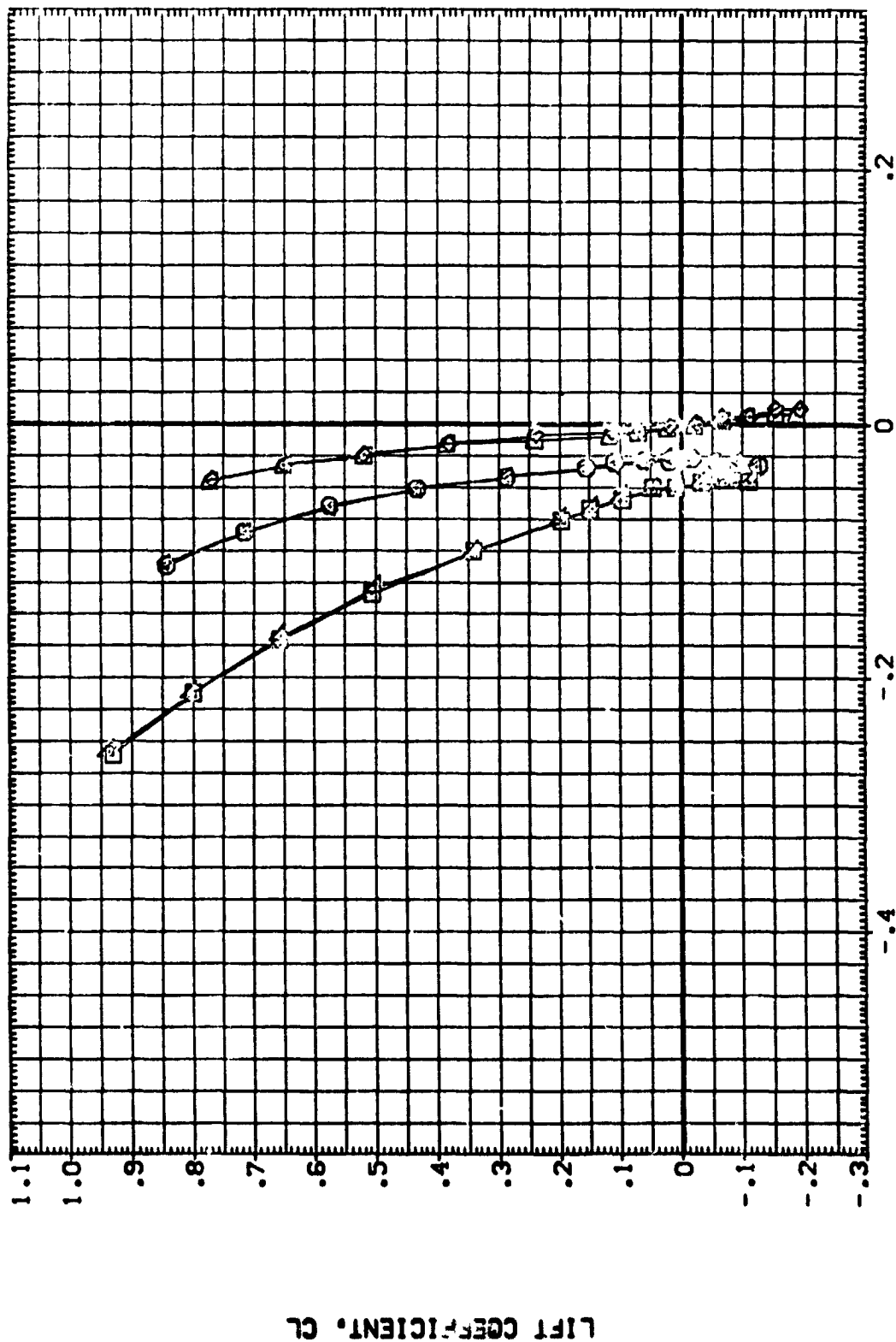


FIG. 4 LONGITUDINAL ELEVON EFFECTIVENESS

(C)MACH = 4.63

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BD FLAP	SPDRK	ELEVON	REFERENCE INFORMATION	SO. FT
(E02101)	BA-208 LARC LPVT 1057 140 A/B 088	.000	-11.700	54.920	.000	SREF	2690.0000
(E02104)	BA-203 LARC LPVT 1057 140 A/B 088	.000	-16.300	54.920	15.000	LREF	1230.0000
(E02105)	BA-203 LARC LPVT 1057 140 A/B 088	.000	-11.700	54.920	-40.000	BREF	938.0000
(E02107)	BA-203 LARC LPVT 1057 140 A/B 088	.000	-11.700	54.920	.000	XMRP	1076.7000
(E02110)	BA-203 LARC LPVT 1057 140 A/B 088	.000	-16.300	54.920	15.000	ZMRP	375.0000
(E02105)	BA-203 LARC LPVT 1057 140 A/B 088	.000	-11.700	54.920	-40.000	SCALE	.0150

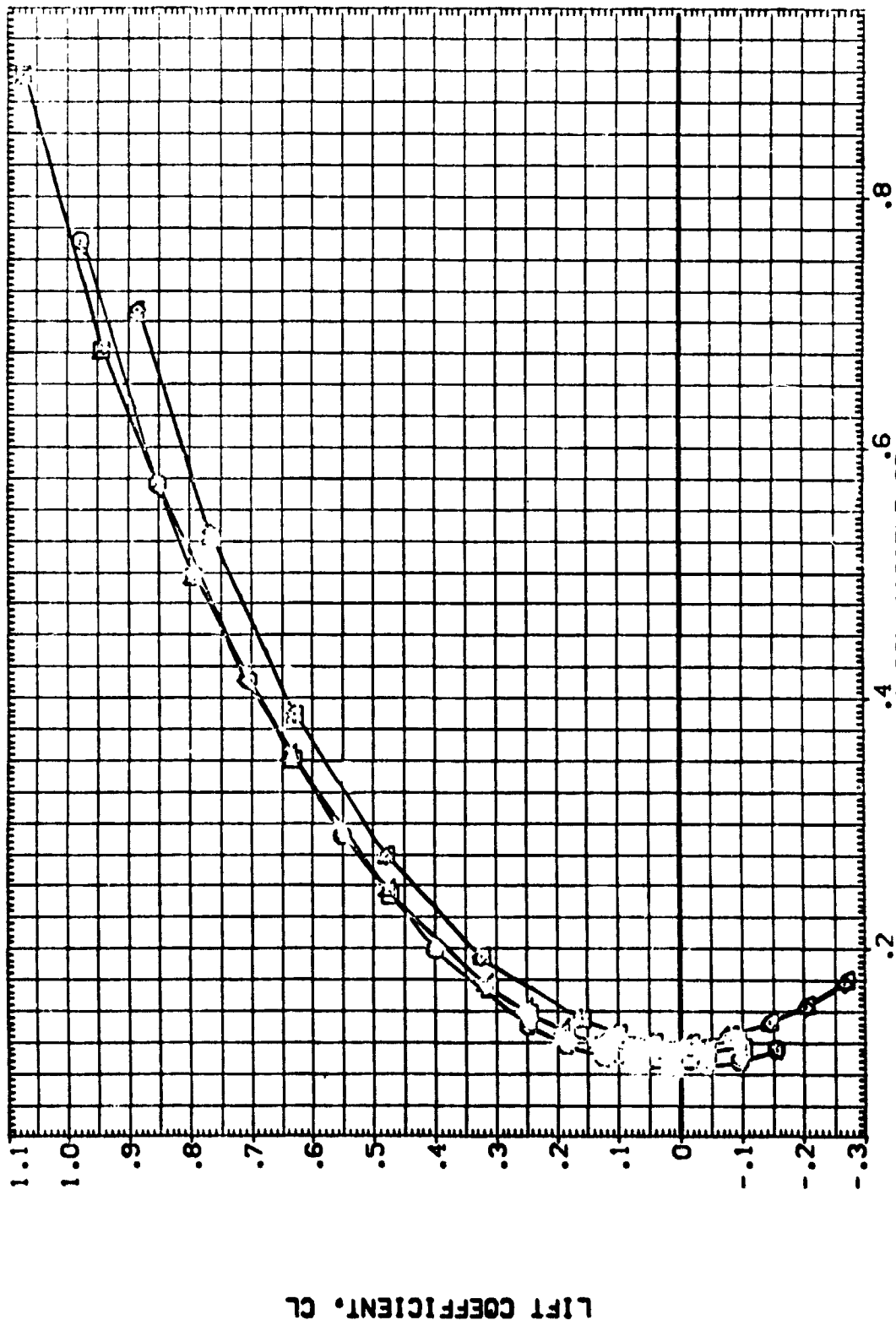


FIG. 4 LONGITUDINAL ELEVON EFFECTIVENESS

(M)MACH = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BOFLAP	SPOBRK	ELEVON	REFERENCE INFORMATION
(ED2101)	0A-203 LARC UPVT 1057 140 A/B 053	.000	-11.700	54.520	.000	2650.0000 SQ.FT.
(ED2104)	0A-203 LARC UPVT 1057 140 A/B 053	.000	-16.300	54.520	15.000	1220.3000 INCHES
(ED2105)	0A-203 LARC UPVT 1057 140 A/B 053	.000	-11.700	54.520	-40.000	933.5000 INCHES
(ED2107)	0A-203 LARC UPVT 1057 140 A/B 053	.000	-11.700	54.520	15.000	1076.7000 INCHES
(ED2110)	0A-203 LARC UPVT 1057 140 A/B 053	.000	-16.300	54.520	15.000	375.0000 INCHES
(ED2106)	0A-203 LARC UPVT 1057 140 A/B 053	.000	-11.700	54.520	-40.000	375.0000 INCHES
						SCALE .0150

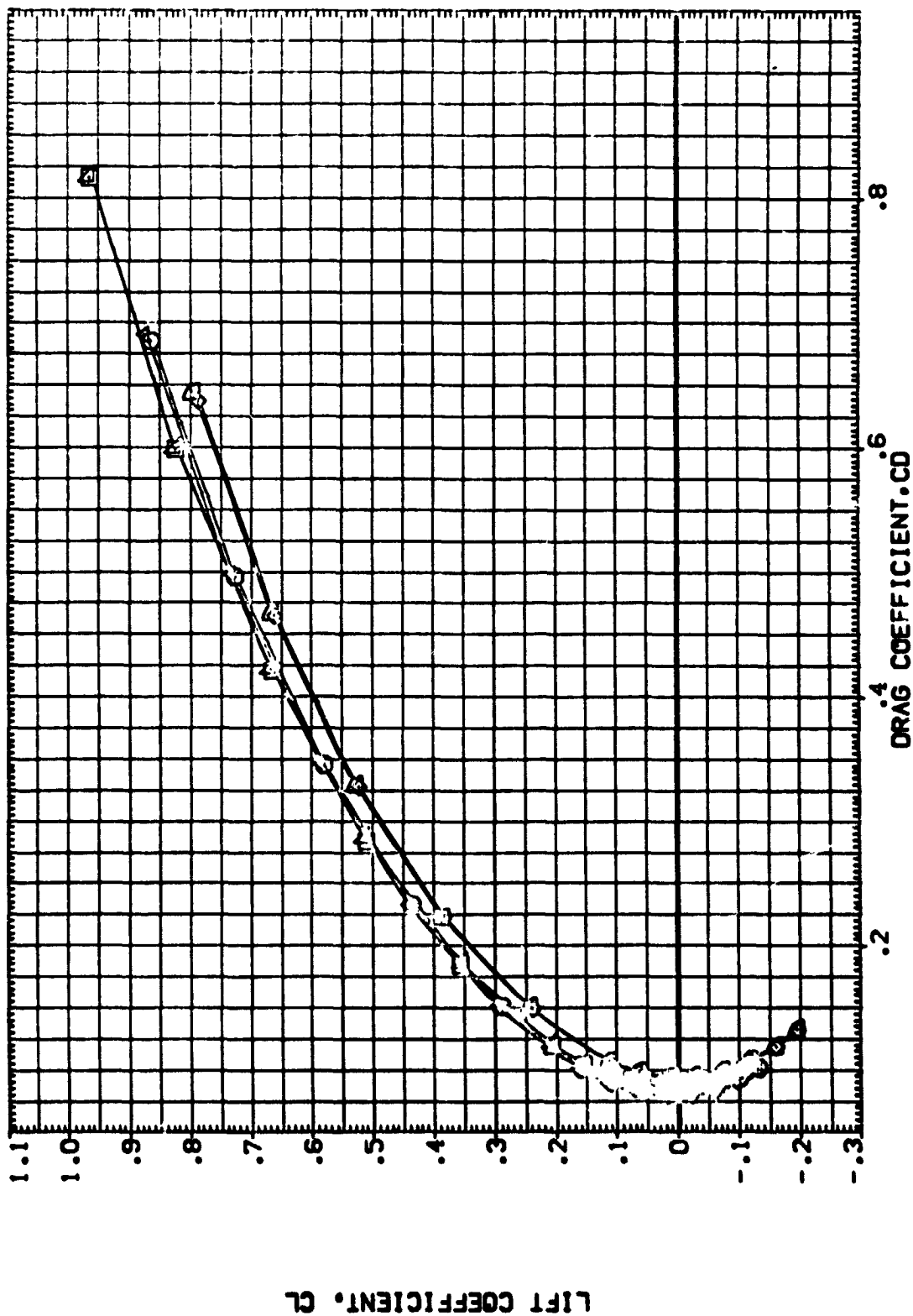


FIG. 4 LONGITUDINAL ELEVON EFFECTIVENESS

(B)MACH = 3.95

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BOFLAP	SPOBRK	ELEVON	REFERENCE INFORMATION
(ED2101)	DA-203 LARC UPAT 1057 140 A/B 018	.000	-11.700	54.920	.000	SREF 2000.0000 50.17
(ED2104)	DA-203 LARC UPAT 1057 140 A/B 018	.000	-16.300	54.920	15.000	LREF 1200.0000 100.00
(ED2105)	DA-203 LARC UPAT 1057 140 A/B 018	.000	-11.700	54.920	-40.000	SREF 1075.0000 100.00
(ED2107)	DA-203 LARC UPAT 1057 140 A/B 018	.000	-16.300	54.920	15.000	XREF 1075.0000 100.00
(ED2110)	DA-203 LARC UPAT 1057 140 A/B 018	.000	-11.700	54.920	-40.000	YREF 375.0000 100.00
(ED2106)	DA-203 LARC UPAT 1057 140 A/B 018	.000	-11.700	54.920	-40.000	ZREF 375.0000 100.00
						SCALE .0150

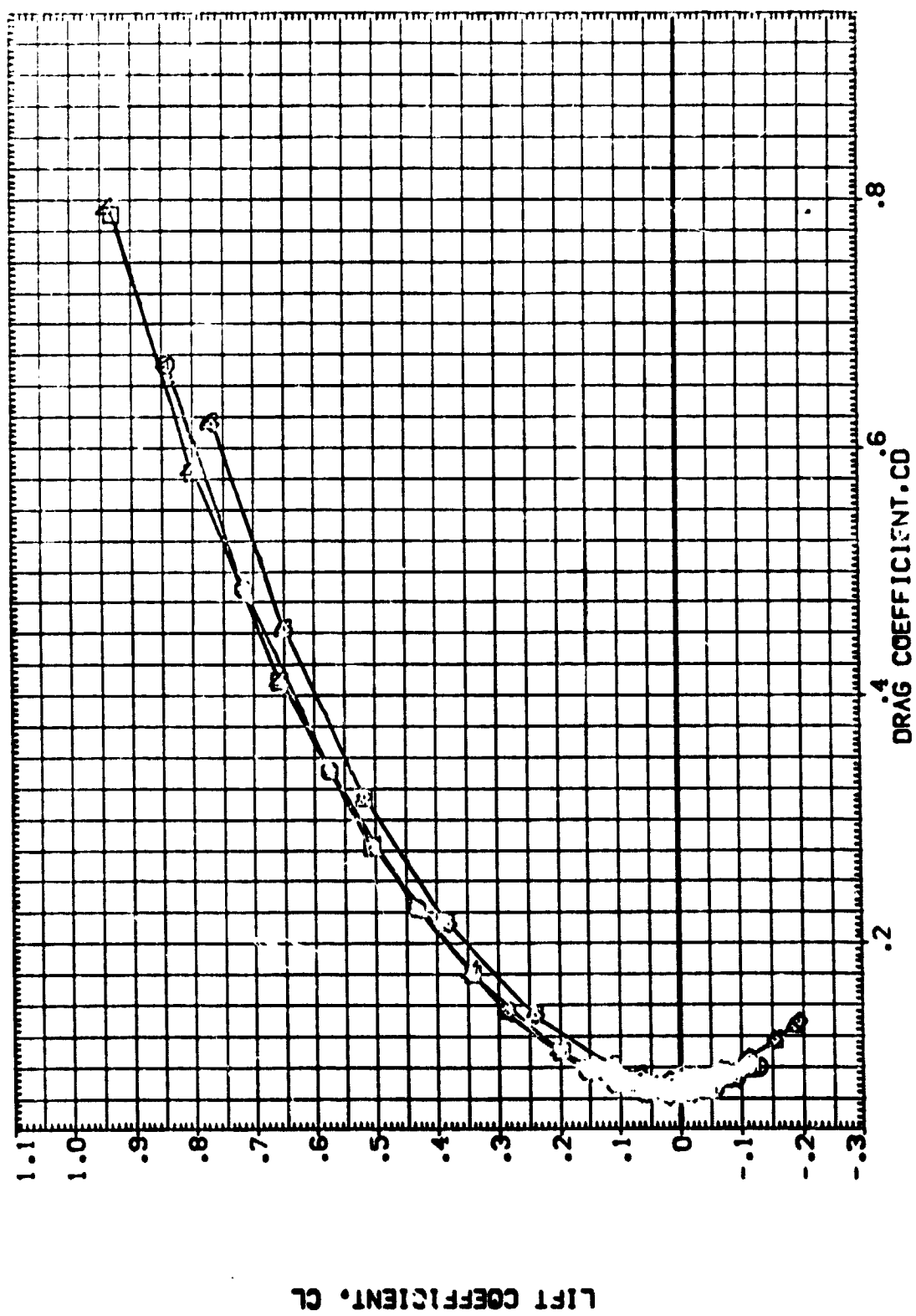


FIG. 4 LONGITUDINAL ELEVON EFFECTIVENESS

(C)MACH = 4.63

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BDLAP	SPD80K	ELEVON	REFERENCE INFORMATION
(F02101)	BA-203 LATE UPAT 1037 140 A/B 038	.000	-11.700	54.920	.000	SREF 2690.0000 SQ.FT.
(F02102)	BA-203 LATE UPAT 1037 140 A/B 038	.000	-16.300	54.920	15.000	LREF 1290.5200 INCHES
(F02103)	BA-203 LATE UPAT 1037 140 A/B 038	.000	-11.700	54.920	-40.000	BREF 925.8700 INCHES
(F02104)	BA-203 LATE UPAT 1037 140 A/B 038	.000	-11.700	54.920	15.000	XREF 1073.7000 INCHES
(F02105)	BA-203 LATE UPAT 1037 140 A/B 038	.000	-16.300	54.920	15.000	YREF .0000 INCHES
(F02106)	BA-203 LATE UPAT 1037 140 A/B 038	.000	-11.700	54.920	-40.000	ZREF 375.0000 INCHES
						SCALE .0150

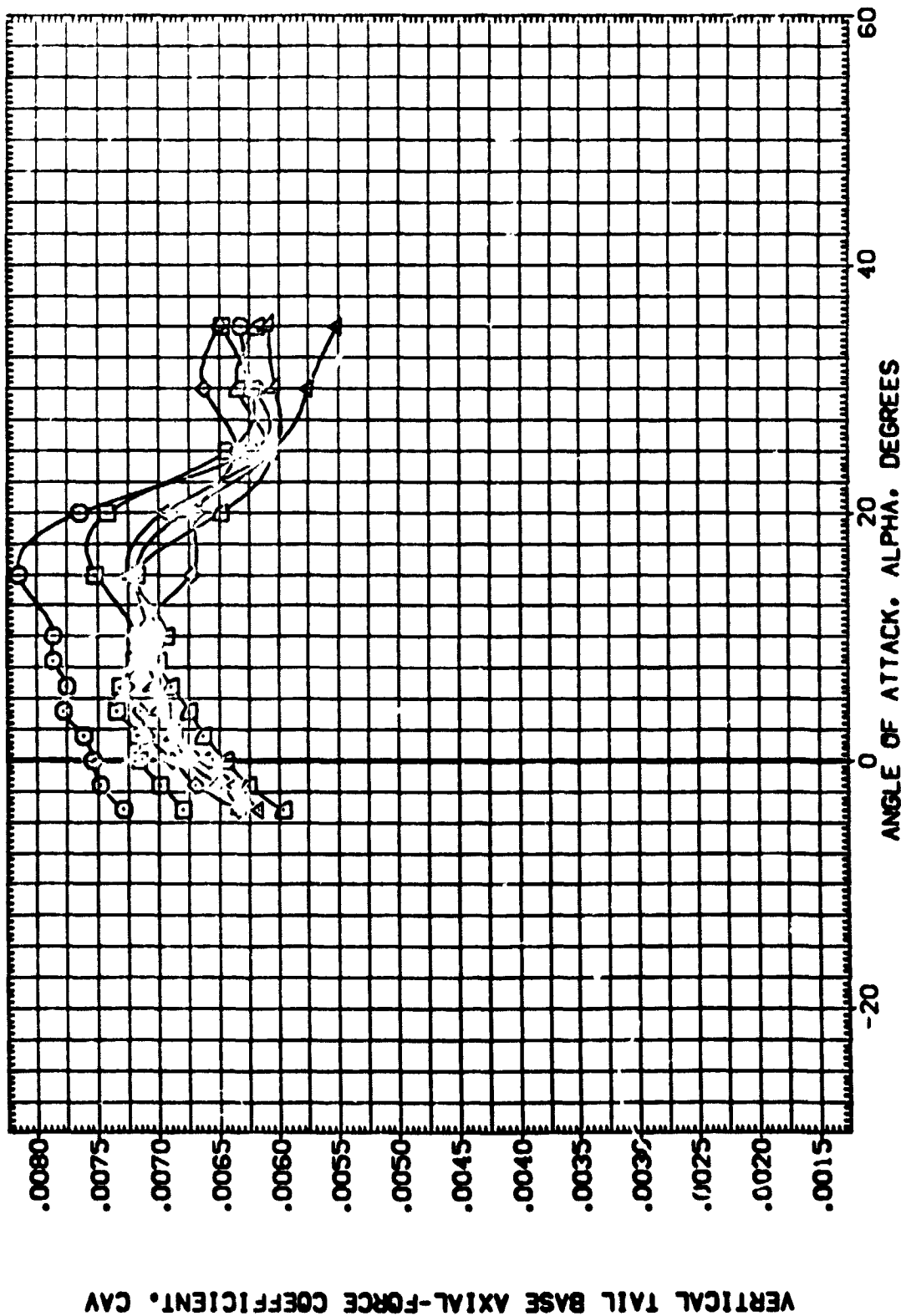


FIG. 4 LONGITUDINAL ELEVON EFFECTIVENESS
(1) MACH = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BD FLAP	SPDBK	ELEVON	REFERENCE INFORMATION
[F02:101]	0A-203 LARC UPVT 1057 140 A/B 000	.000	-11.700	54.920	.000	SREF 2650.0000 SQ. FT.
[F02:104]	0A-203 LARC UPVT 1057 140 A/B 000	.000	-16.700	54.920	15.000	LREF 1200.0000 INC. FT.
[F02:105]	0A-203 LARC UPVT 1057 140 A/B 000	.000	-11.700	54.920	-40.000	BREF 600.0000 INC. FT.
[F02:107]	0A-203 LARC UPVT 1057 140 A/B 000	.000	-11.700	54.920	15.000	XREF 1075.0000 INC. FT.
[F02:108]	0A-203 LARC UPVT 1057 140 A/B 000	.000	-16.700	54.920	-40.000	YREF 375.0000 INC. FT.
[F02:109]	0A-203 LARC UPVT 1057 140 A/B 000	.000	-11.700	54.920	15.000	ZREF 1075.0000 INC. FT.
[F02:110]	0A-203 LARC UPVT 1057 140 A/B 000	.000	-16.700	54.920	-40.000	SCALE .0150

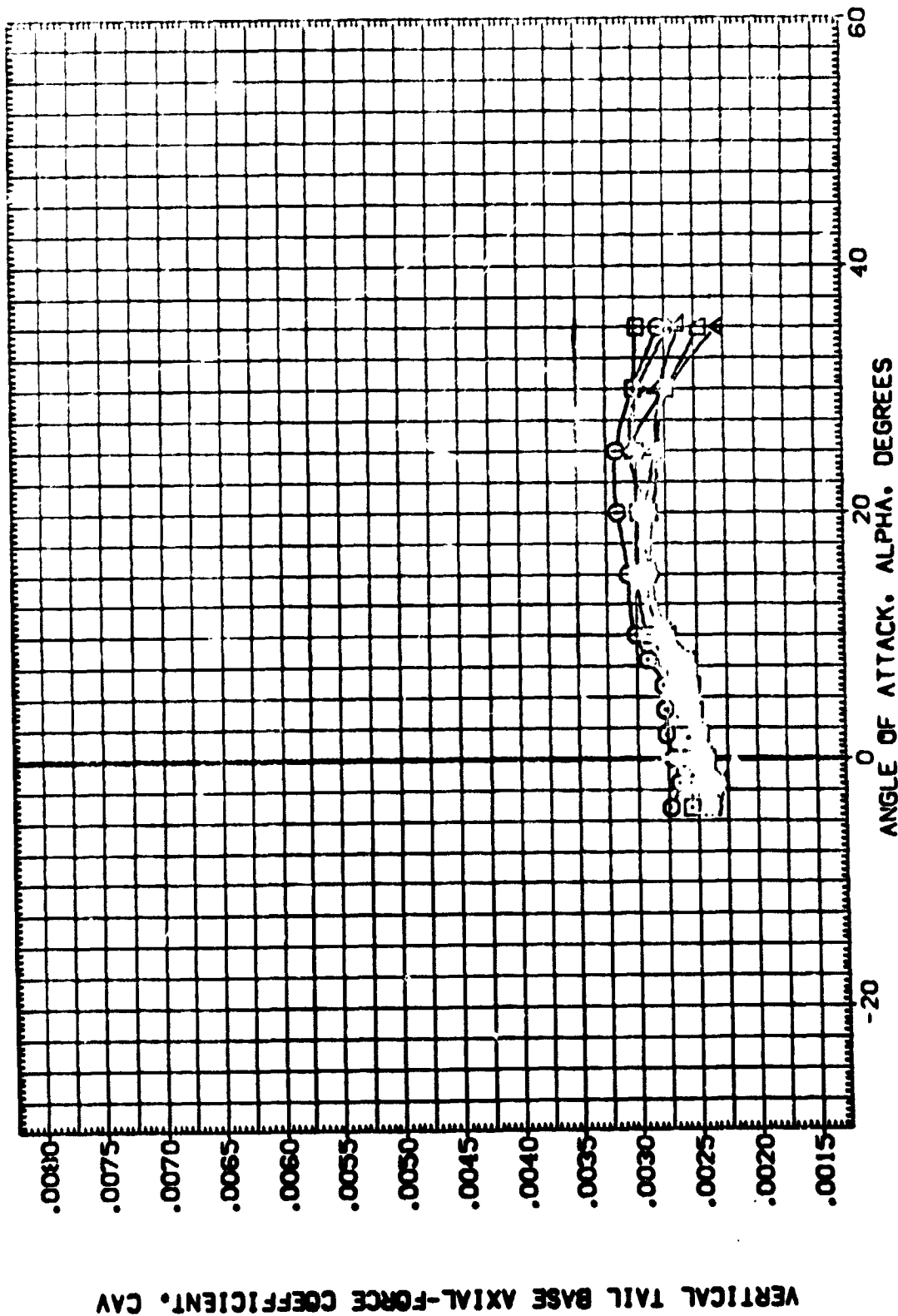


FIG. 4 LONGITUDINAL ELEVON EFFECTIVENESS

(B)MACH = 3.95



DATA SET	SPEED	CONFIGURATION	DESCRIPTION	BETA	BDLAP	SPOBRK	ELEVON	REFERENCE INFORMATION
(F02101)	0.000	0A-203	LARC UPVT 1077 140 A/B 078	.000	-11.700	54.920	.000	SREF 2000.0000 50.000
(F02104)	0.000	0A-203	LARC UPVT 1077 140 A/B 073	.000	-11.700	54.920	.000	LREF 1200.0000 10.000
(F02105)	0.000	0A-203	LARC UPVT 1077 140 A/B 073	.000	-11.700	54.920	.000	BREF 925.0000 10.000
(F02107)	0.000	0A-203	LARC UPVT 1077 140 A/B 073	.000	-11.700	54.920	.000	XREF 1075.0000 10.000
(F02108)	0.000	0A-203	LARC UPVT 1077 140 A/B 073	.000	-11.700	54.920	.000	YREF 375.0000 10.000
(F02109)	0.000	0A-203	LARC UPVT 1077 140 A/B 073	.000	-11.700	54.920	.000	ZREF 375.0000 10.000
(F02108)	0.000	0A-203	LARC UPVT 1077 140 A/B 073	.000	-11.700	54.920	.000	SCALE .0150

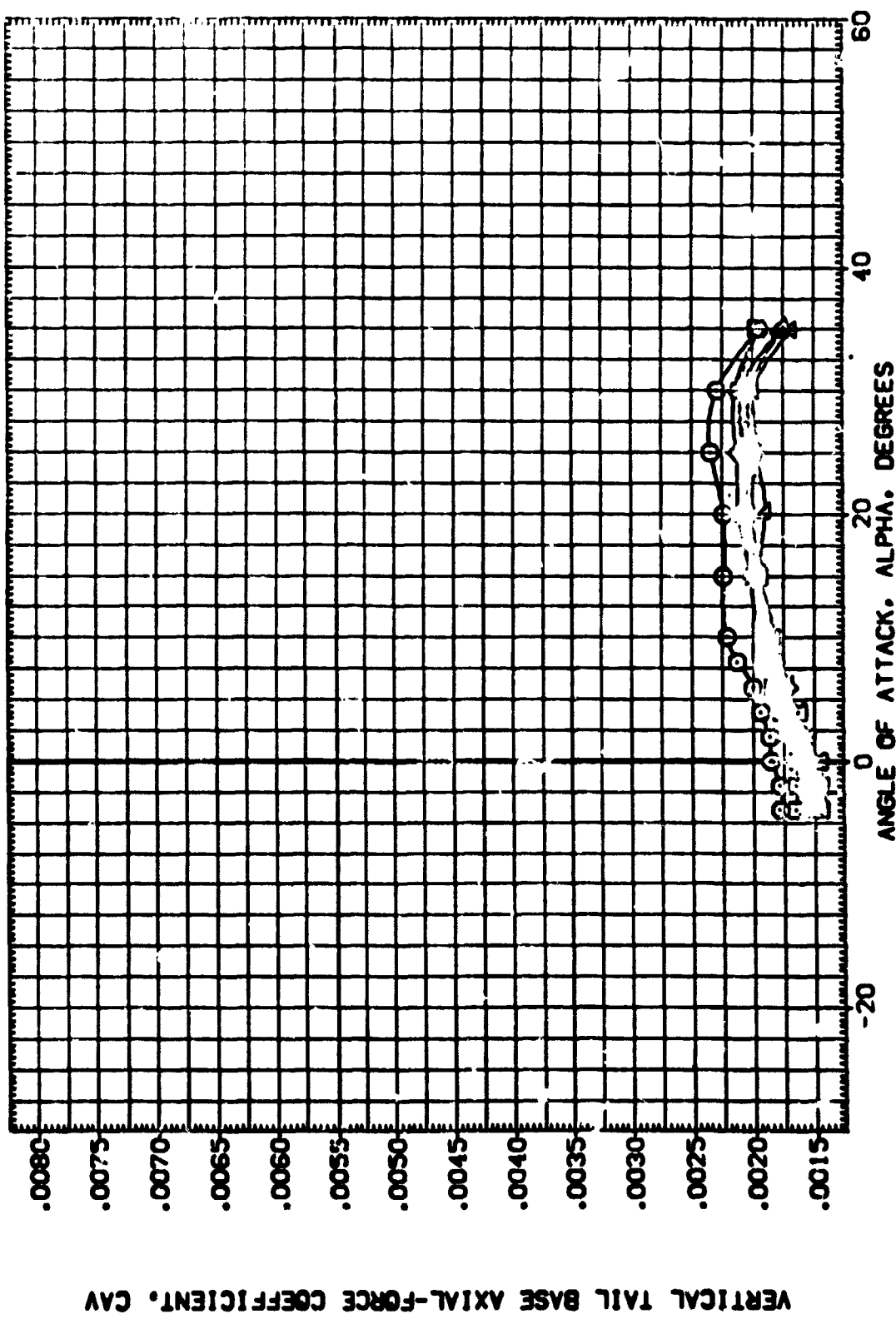


FIG. 4 LONGITUDINAL ELEVON EFFECTIVENESS

(C)MACH = 4.63

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	ROFLAP	SPDRK	ELEVON	REFERENCE INFORMATION
[F02101]	DA-203 LARC UPVT 1037 140 A/B DBB	.000	-11.700	54.920	.000	SREF 2590.0000 50.000
[F02104]	DA-203 LARC UPVT 1037 140 A/B DBB	.000	-11.700	54.920	.000	LREF 1200.0000 100.000
[F02105]	DA-203 LARC UPVT 1037 140 A/B DBB	.000	-11.700	54.920	.000	BREF 935.0000 100.000
[F02107]	DA-203 LARC UPVT 1037 140 A/B DBB	.000	-11.700	54.920	.000	YREF 1075.0000 100.000
[F02110]	DA-203 LARC UPVT 1037 140 A/B DBB	.000	-11.700	54.920	.000	ZREF 375.0000 100.000
[F02106]	DA-203 LARC UPVT 1037 140 A/B DBB	.000	-11.700	54.920	.000	SCALE .0150 SCALE

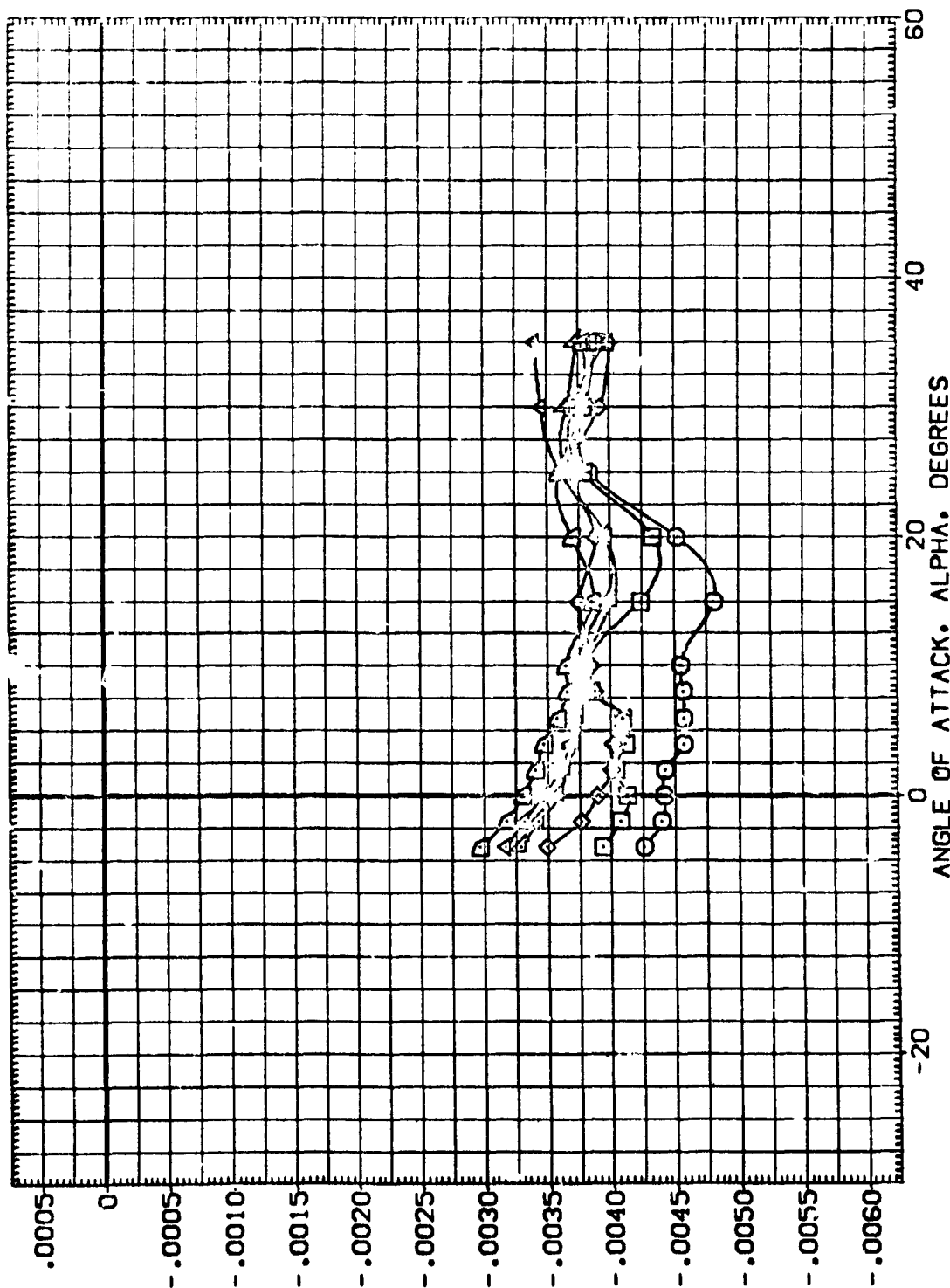


FIG. 4 LONGITUDINAL ELEVON EFFECTIVENESS

(A)MACH = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BOFLAP	SPOBRK	ELEVON	REFERENCE INFORMATION
(F02101)	DA-208 LARC UPVT 1057 140 A/B 058 +JUMPY STING	.000	-11.700	54.520	.000	SREF 2693.0000 SQ. FT.
(F02104)	DA-208 LARC UPVT 1057 140 A/B 058 +JUMPY STING	.000	-16.300	54.520	15.000	LREF 1200.3000 INCHES
(F02105)	DA-208 LARC UPVT 1057 140 A/B 058 +JUMPY STING	.000	-11.700	54.520	-40.000	BREF 935.6000 INCHES
(F02107)	DA-208 LARC UPVT 1057 140 A/B 058	.000	-11.700	54.520	15.000	XMRP 1076.7000 INCHES
(F02110)	DA-208 LARC UPVT 1057 140 A/B 058	.000	-16.300	54.520	15.000	YMRP .0000 INCHES
(F02106)	DA-208 LARC UPVT 1057 140 A/B 058	.000	-11.700	54.520	-40.000	ZMRP 375.0000 INCHES
						SCALE .0150

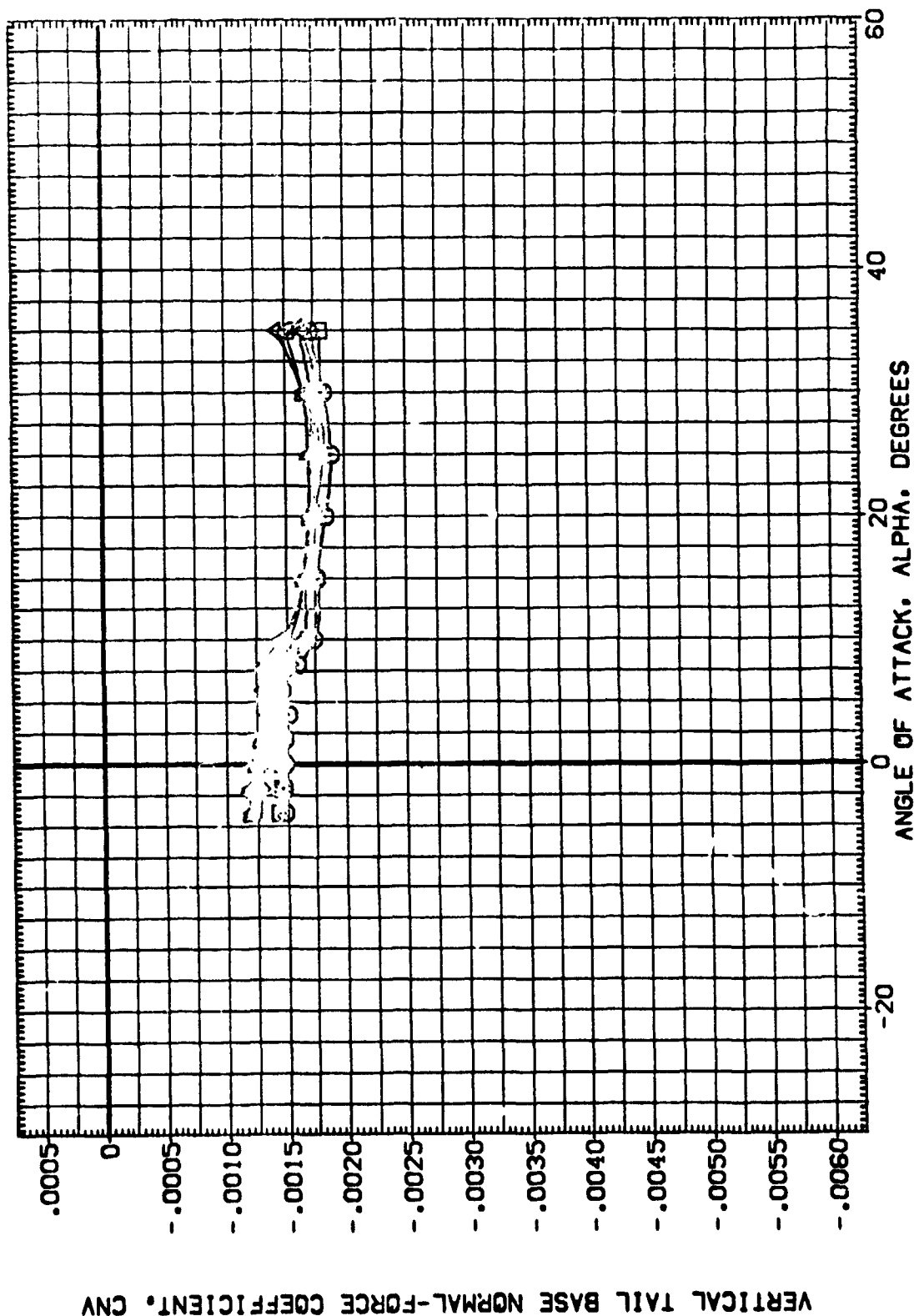


FIG. 4 LONGITUDINAL ELEVON EFFECTIVENESS

(B)MACH = 3.95

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BOFLAP	SPOBRK	ELEVON	REFERENCE INFORMATION	SO.FT.
(F02101)	DA-203 LARC UPVT 1037 140 A/B G38	.000	-11.700	54.920	.000	SREF 2650.0000	INCHES
(F02104)	DA-203 LARC UPVT 1037 140 A/B G38	.000	-16.200	54.920	15.000	LREF 1250.0000	INCHES
(F02105)	DA-203 LARC UPVT 1037 140 A/B G38	.000	-11.700	54.920	-40.000	BREF 920.0000	INCHES
(F02107)	DA-203 LARC UPVT 1037 140 A/B G38	.000	-11.700	54.920	.000	XMRP 1075.0000	INCHES
(F02110)	DA-203 LARC UPVT 1037 140 A/B G38	.000	-16.200	54.920	15.000	YMRP .0000	INCHES
(F02106)	DA-203 LARC UPVT 1037 140 A/B G38	.000	-11.700	54.920	-40.000	ZMRP 375.0000	INCHES
						SCALE .0150	SCALE

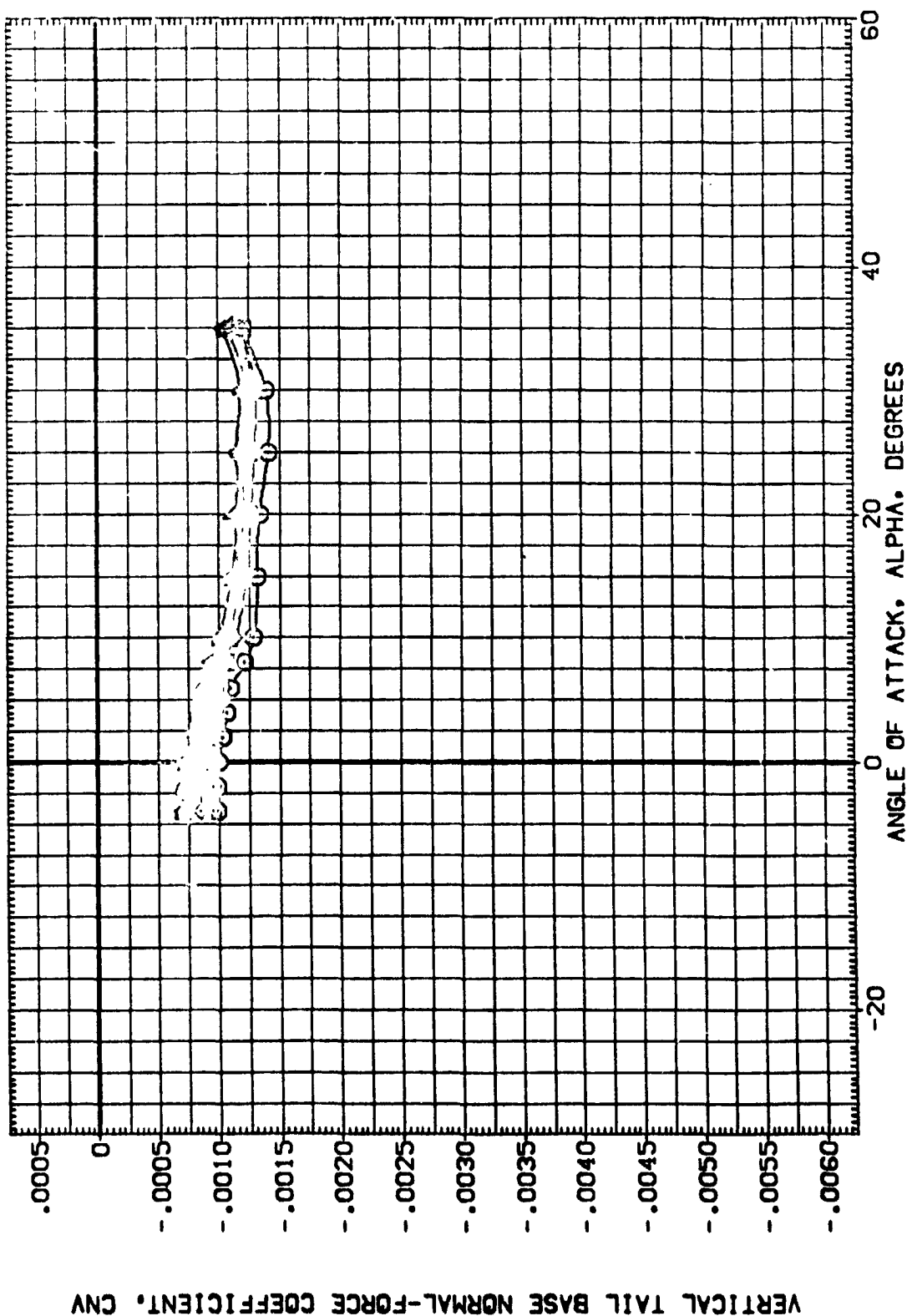


FIG. 4 LONGITUDINAL ELEVON EFFECTIVENESS

(C)MACH = 4.63



DATA SET SYMBOL	CONFIGURATION	DESCRIPTION	BETA	BDF LAP	SPOBRK	ELEVON	REFERENCE INFORMATION
(F02101)	0A-203	LARC UPNT 1057 140 A/B 023	.000	-11.700	54.920	.000	SREF 2690.0000 SQ.FT.
(F02104)	0A-203	LARC UPNT 1057 140 A/B 023	.000	-16.300	54.920	15.000	LREF 1290.3000 INCHES
(F02105)	0A-203	LARC UPNT 1057 140 A/B 023	.000	-11.700	54.920	-40.000	BREF 935.5000 INCHES
(F02107)	0A-203	LARC UPNT 1057 140 A/B 023	.000	-11.700	54.920	.000	XRRP 1075.7000 INCHES
(F02110)	0A-203	LARC UPNT 1057 140 A/B 023	.000	-16.300	54.920	15.000	YRRP .0000 INCHES
(F02106)	0A-203	LARC UPNT 1057 140 A/B 023	.000	-11.700	54.920	-40.000	ZRRP 375.0000 INCHES
							SCALE .0150

VERT. TAIL BASE PITCH.-MOM. COEFF. (MRP = 65 PC BL.), CMVFWD

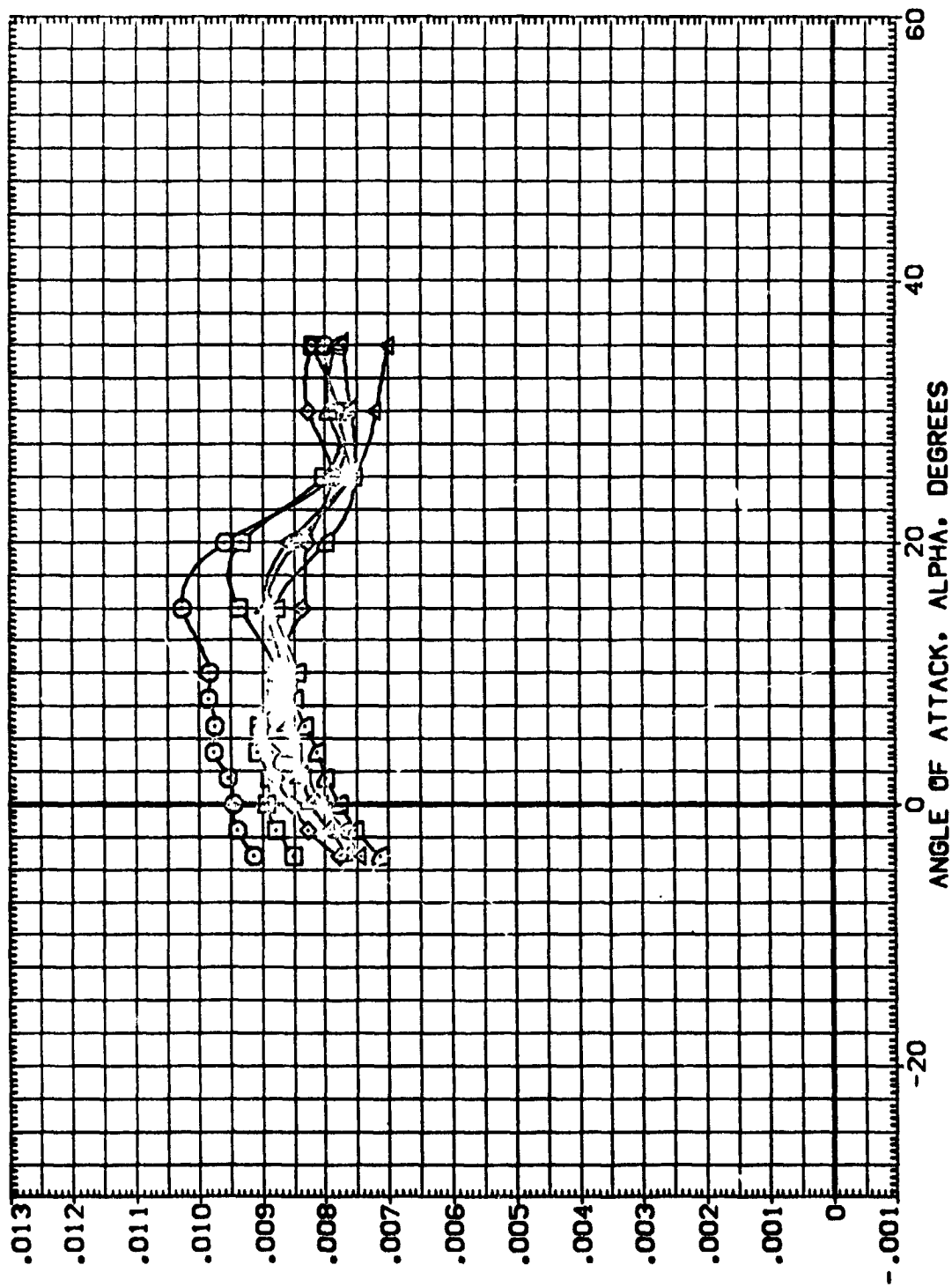


FIG. 4 LONGITUDINAL ELEVON EFFECTIVENESS

(A)MACH = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BOFLAP	SPDRK	ELEVON	REFERENCE INFORMATION	SO. FT.
(F02101)	DA-203 LARC UPVT 1037 140 A/B C/B	.000	-11.700	54.920	.000	SREF	2670.0000
(F02104)	DA-203 LARC UPVT 1037 140 A/B C/B	.000	16.300	54.920	15.000	LRFF	1243.0000
(F02105)	DA-203 LARC UPVT 1037 140 A/B C/B	.000	-11.700	54.920	-40.000	BRFF	955.0000
(F02107)	DA-203 LARC UPVT 1037 140 A/B C/B	.000	-11.700	54.920	15.000	XREF	1075.0000
(F02110)	DA-203 LARC UPVT 1037 140 A/B C/B	.000	16.300	54.920	15.000	YREF	375.0000
(F02106)	DA-203 LARC UPVT 1037 140 A/B C/B	.000	-11.700	54.920	-40.000	ZREF	.0150
						SCALE	

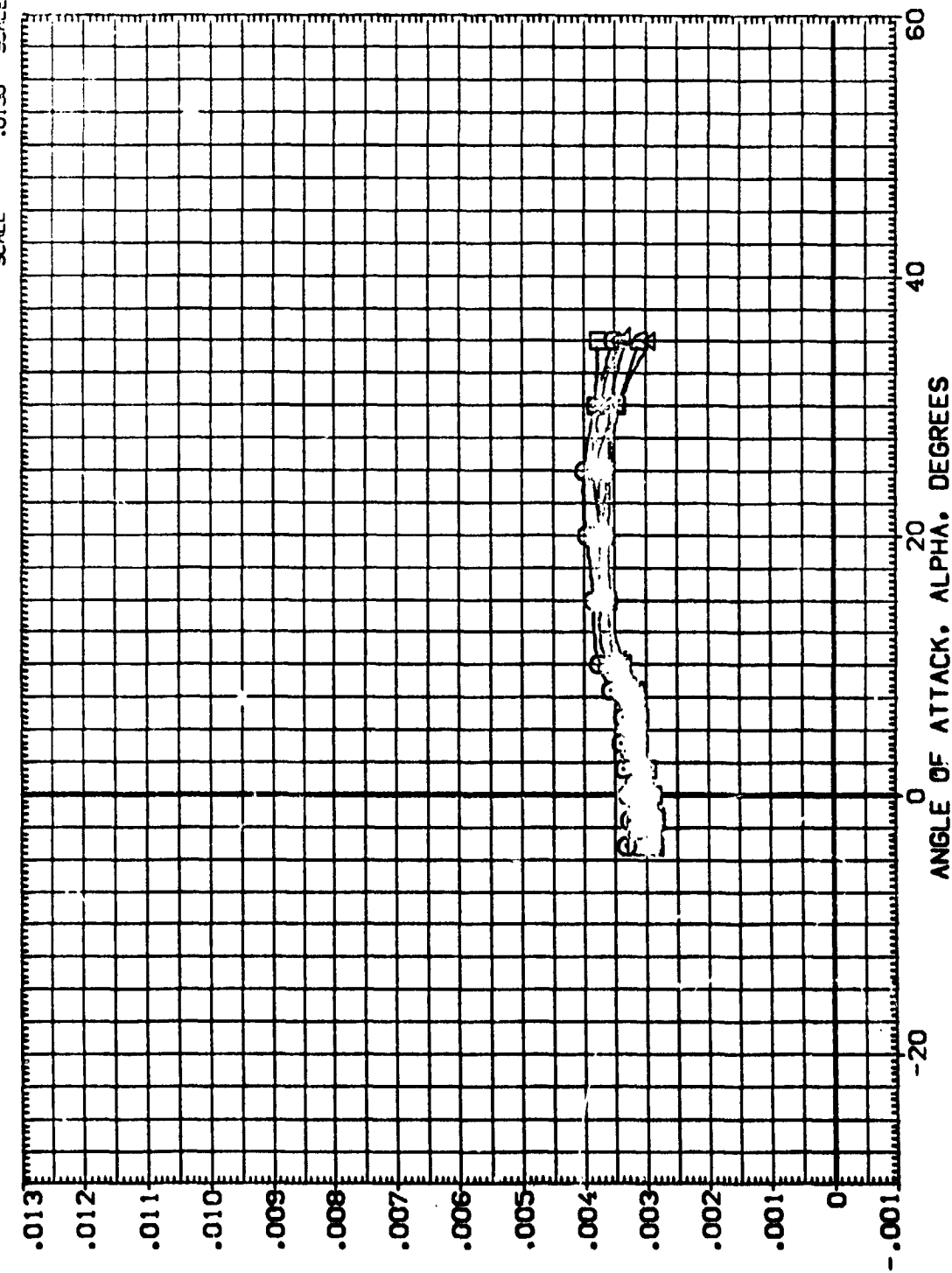


FIG. 4 LONGITUDINAL ELEVON EFFECTIVENESS

(B)MACH = 3.95

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BDCLAP	SFOBRK	ELEVON	REFERENCE INFORMATION
(F02101)	0A-208 LARC UPVT 1097 140 A/B 058	.000	-11.700	54.920	.000	SREF 2690.0000 SQ.FT.
(F02104)	0A-208 LARC UPVT 1097 140 A/B 058	.000	-16.300	54.920	15.000	LREF 1790.3000 INCHES
(F02105)	0A-208 LARC UPVT 1097 140 A/B 058	.000	-11.700	54.920	-40.000	BREF 936.6000 INCHES
(F02107)	0A-208 LARC UPVT 1097 140 A/B 058	.000	-11.700	54.920	15.000	XMRP 1076.7000 INCHES
(F02110)	0A-208 LARC UPVT 1097 140 A/B 058	.000	-16.300	54.920	15.000	YMRP .0000 INCHES
(F02106)	0A-208 LARC UPVT 1097 140 A/B 058	.000	-11.700	54.920	-40.000	ZMRP 375.0000 INCHES
						SCALE .0150

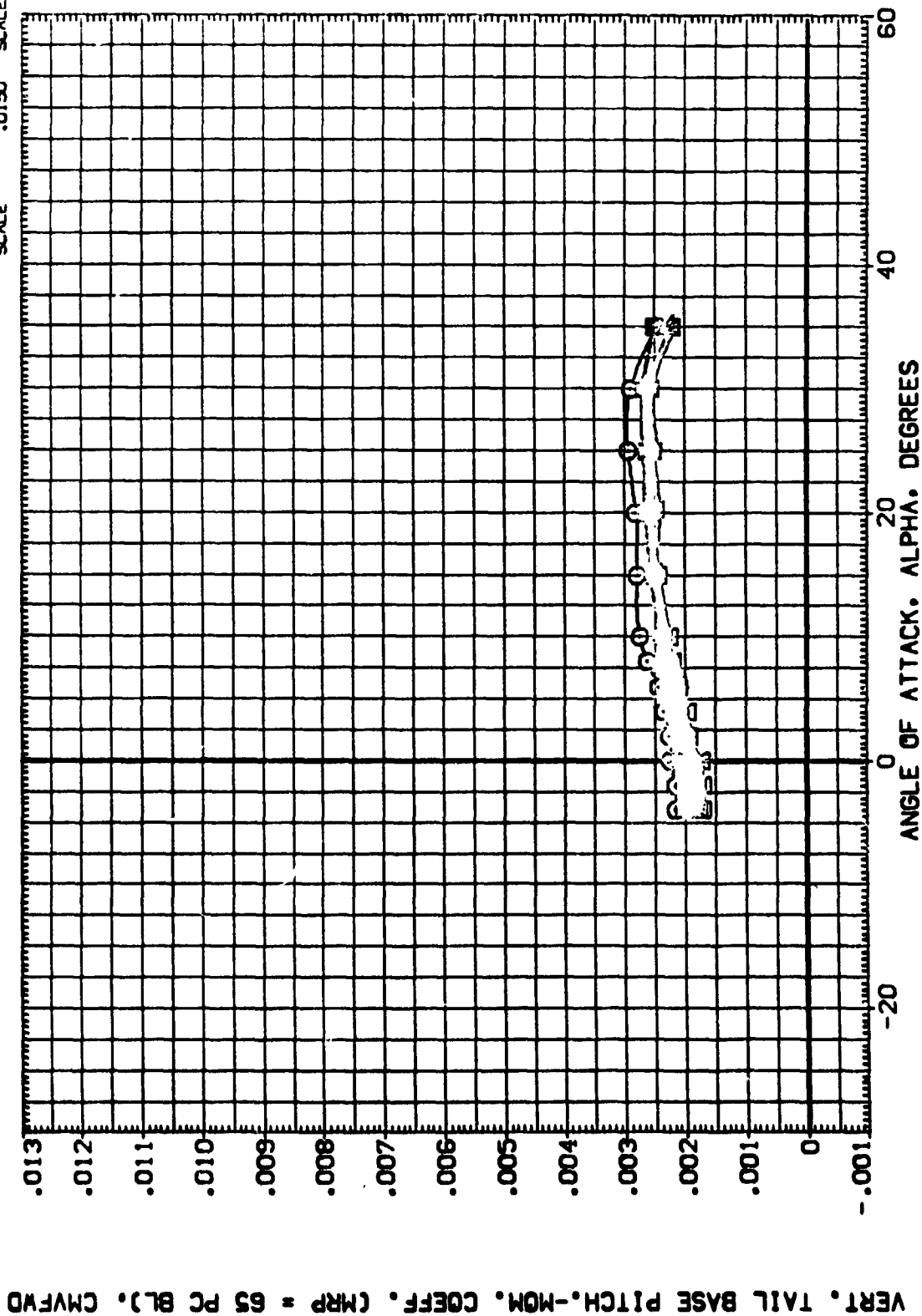


FIG. 4 LONGITUDINAL ELEVON EFFECTIVENESS

(CMACH = 4.63

DATA SET SYMBOL CONFIGURATION DESCRIPTION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BOFLAP	SPOBRK	ELEVON	REFERENCE INFORMATION
(F02101)	0A-208 LARC UPVT 1057 140 A/B 0RB	.000	-11.700	54.920	.000	SREF 2690.0000 SQ.FT.
(F02104)	0A-208 LARC UPVT 1057 140 A/B 0RB	.000	-16.300	54.920	15.000	LREF 1290.2000 INCHES
(F02105)	0A-208 LARC UPVT 1057 140 A/B 0RB	.000	-11.700	54.920	-40.000	BREF 323.6000 INCHES
(F02107)	0A-208 LARC UPVT 1057 140 A/B 0RB	.000	-11.700	54.920	15.000	YMRP 1076.7000 INCHES
(F02110)	0A-208 LARC UPVT 1057 140 A/B 0RB	.000	-16.300	54.920	15.000	ZMRP .0000 INCHES
(F02106)	0A-208 LARC UPVT 1057 140 A/B 0RB	.000	-11.700	54.920	-40.000	SCALE 375.0000 INCHES

VERT. TAIL BASE PITCH.-MQM. COEFF. (MRP = 67.5 PC BL). CMVAFT

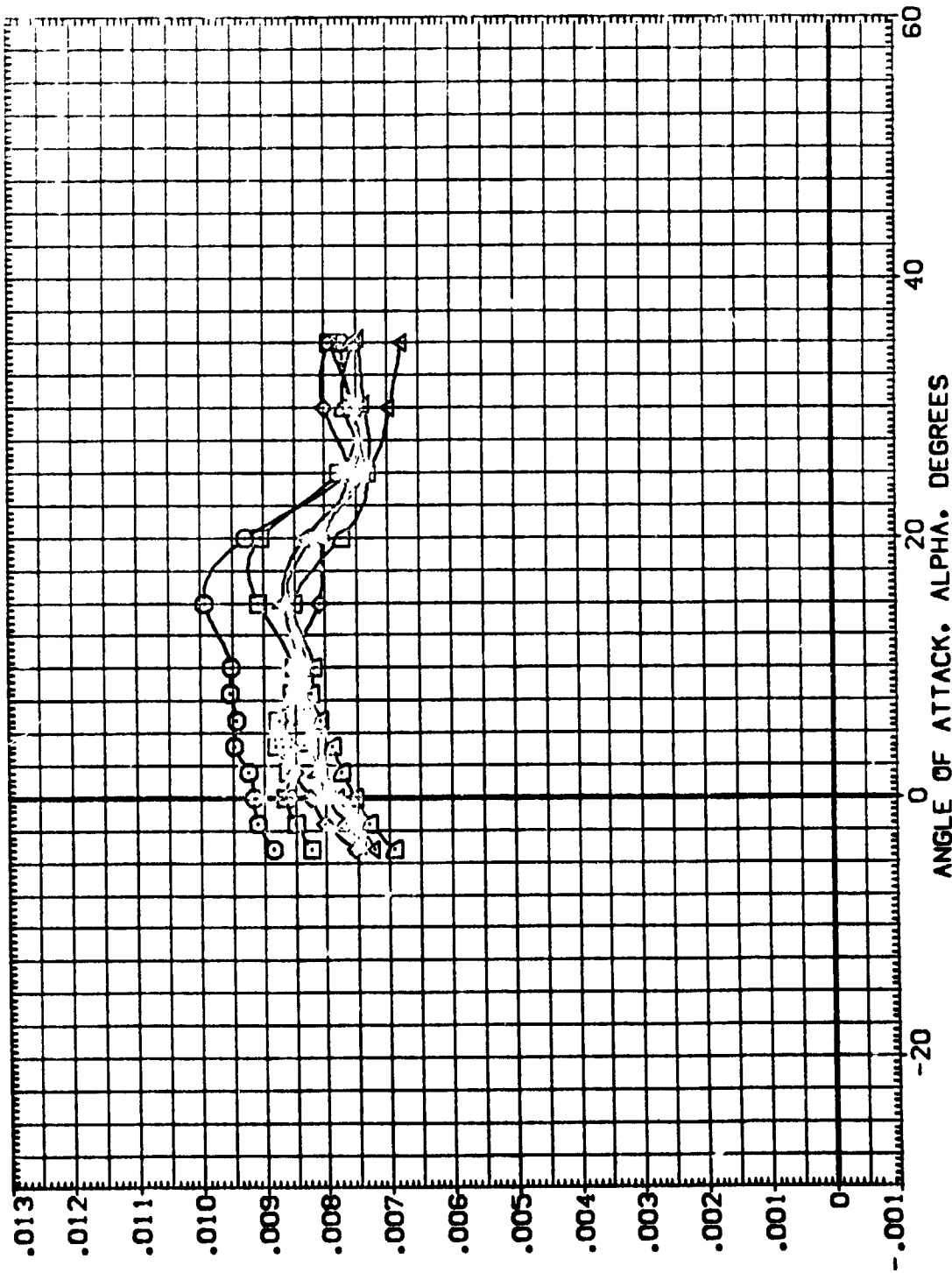


FIG. 4 LONGITUDINAL ELEVON EFFECTIVENESS

(A)MACH = 2.50



DATA SET SYMBOL CONFIGURATION DESCRIPTION BETA BOFLAP SPOBRK ELEVON REFERENCE INFORMATION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BOFLAP	SPOBRK	ELEVON	REFERENCE INFORMATION
(F02101)	BA-208 LARC UPVT 1037 140 A/B 028	.000	-11.700	54.920	.000	SREF 2630.0000 SQ.FT.
(F02104)	BA-208 LARC UPVT 1037 140 A/B 023	.000	16.300	54.920	15.000	LREF 1230.3000 INCHES
(F02105)	BA-208 LARC UPVT 1037 140 A/B 028	.000	-11.700	54.920	-40.000	BREF 926.0000 INCHES
(F02107)	BA-208 LARC UPVT 1037 140 A/B 023	.000	-11.700	54.920	15.000	YPRP 1076.7000 INCHES
(F02110)	BA-208 LARC UPVT 1037 140 A/B 028	.000	16.300	54.920	15.000	ZPRP .0000 INCHES
(F02106)	BA-208 LARC UPVT 1037 140 A/B 023	.000	-11.700	54.920	-40.000	SCALE .0150

VERT. TAIL BASE PITCH.-MOM. COEFF. (MRP = 67.5 PC BL.). CHVAFT

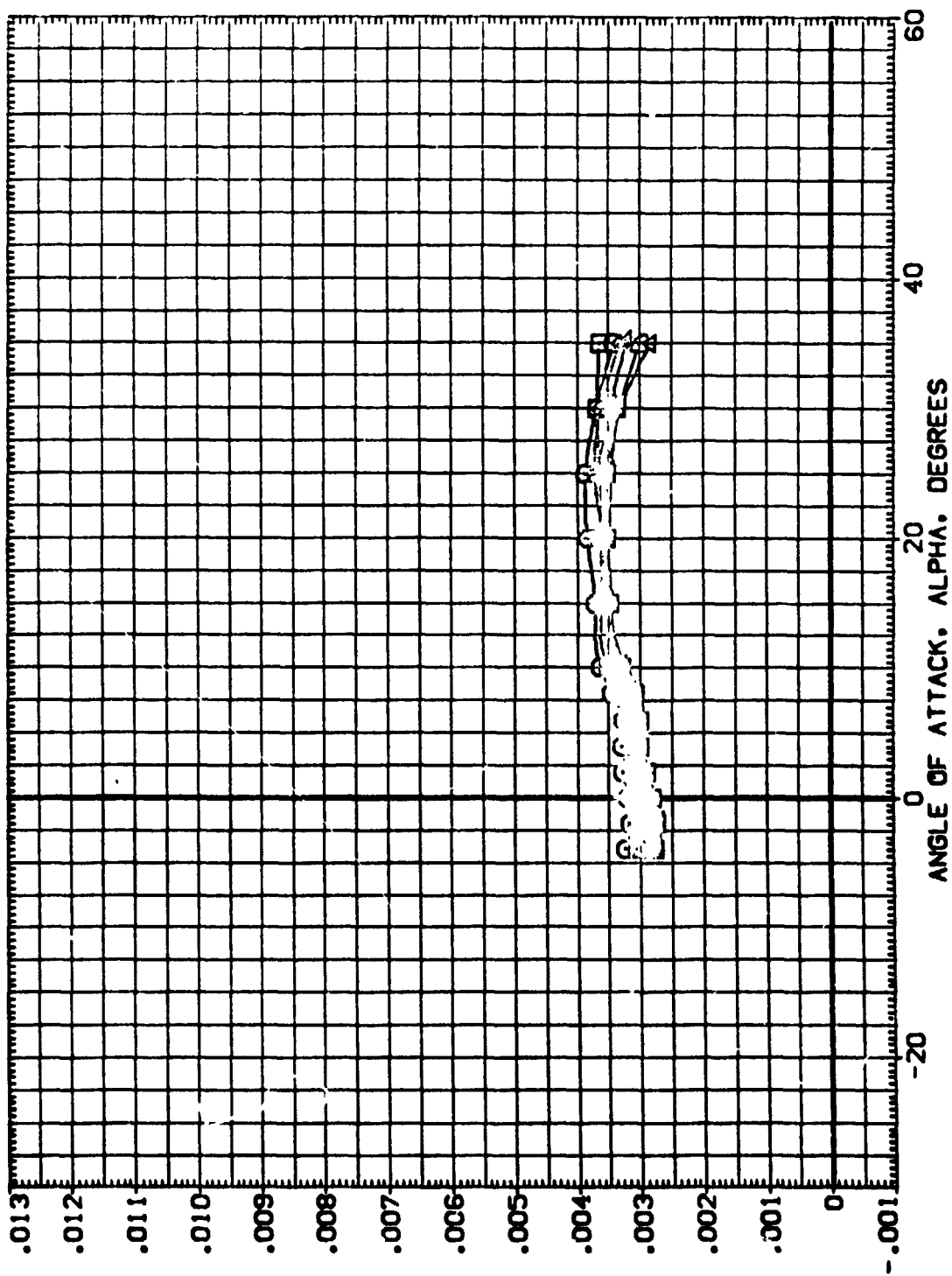


FIG. 4 LONGITUDINAL ELEVON EFFECTIVENESS

(B)MACH = 3.95



VERT. TAIL BASE PITCH.-MON. COEFF. (MRP = 67.5 PC BL.). CHVAFT

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BOFLAP	SPOBRK	ELEVON	REFERENCE INFORMATION
(F02101)	0A-203 LARC UPVT 1037 140 A/B 078	.000	-11.700	54.920	.000	SREF 2690.0000 SQ.FT.
(F02104)	0A-203 LARC UPVT 1037 140 A/B 078	.000	-16.300	54.920	15.000	LREF 1290.0000 INCHES
(F02105)	0A-203 LARC UPVT 1037 140 A/B 078	.000	-11.700	54.920	-40.000	BREF 935.0000 INCHES
(F02107)	0A-203 LARC UPVT 1037 140 A/B 078	.000	-16.300	54.920	15.000	XMRP 1076.0000 INCHES
(F02110)	0A-203 LARC UPVT 1037 140 A/B 078	.000	-11.700	54.920	-40.000	YMRP 375.0000 INCHES
(F02106)	0A-203 LARC UPVT 1037 140 A/B 078	.000	-11.700	54.920	-40.000	ZMRP .0150 SCALE

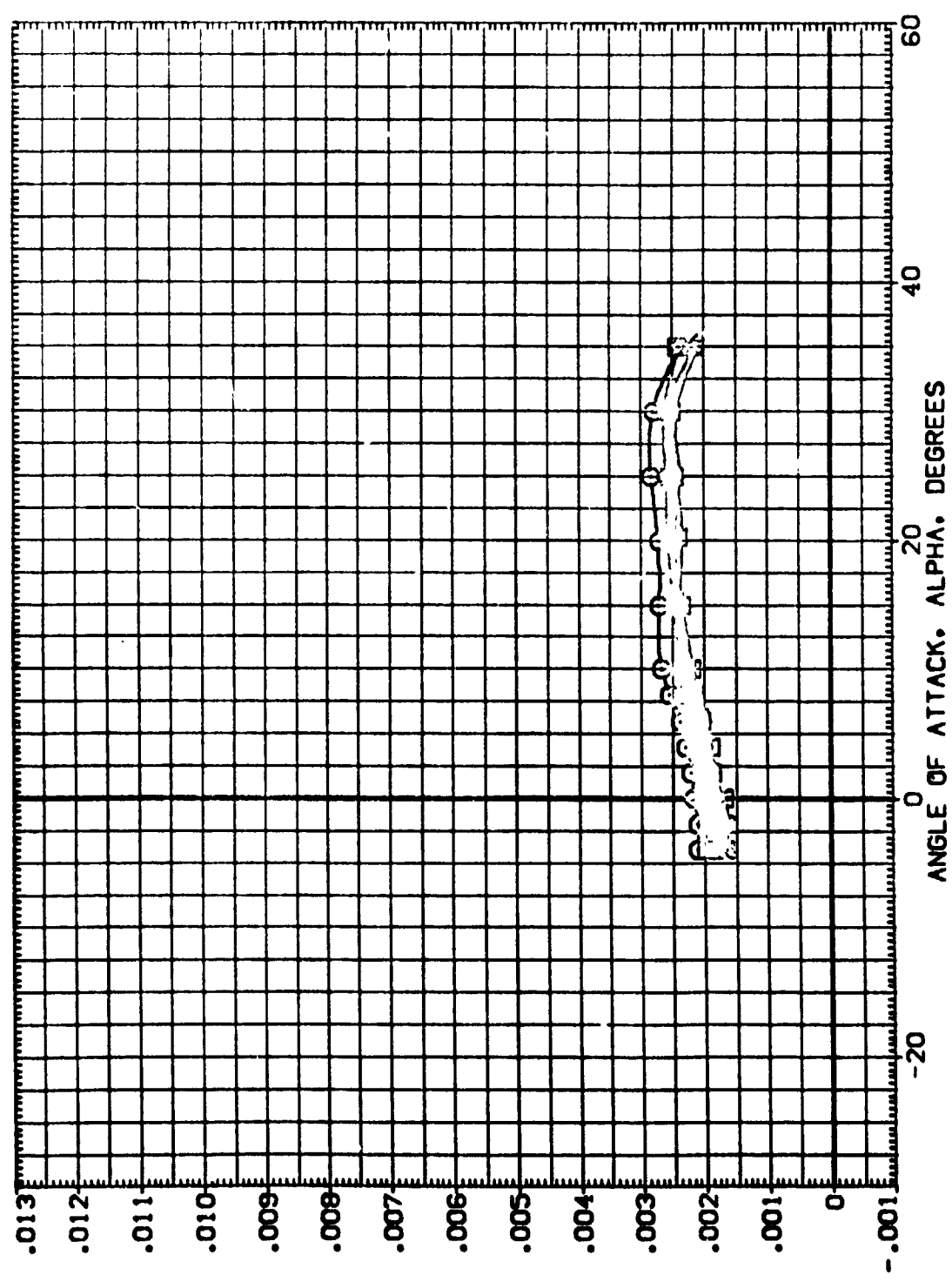


FIG. 4 LONGITUDINAL ELEVON EFFECTIVENESS

(C)MACH = 4.63

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BD FLAP	SPD BRK	ELEVON	REFERENCE INFORMATION
(F02101)	BA-208 LARC UPVT 1097 140 A/B DB8	.000	-11.700	54.920	.000	SRF 2690.0000 SO.FT.
(F02104)	BA-208 LARC UPVT 1097 140 A/B DB8	.000	-16.700	54.920	15.000	LREF 1293.9270 INCHES
(F02105)	BA-208 LARC UPVT 1097 140 A/B DB8	.000	-11.700	54.920	-40.000	BREF 933.8100 INCHES
(F02107)	BA-208 LARC UPVT 1097 140 A/B DB8	.000	-11.700	54.920	15.000	VRP 1076.7000 INCHES
(F02110)	BA-208 LARC UPVT 1097 140 A/B DB8	.000	-16.700	54.920	15.000	VRP 375.0000 INCHES
(F02106)	BA-208 LARC UPVT 1097 140 A/B DB8	.000	-11.700	54.920	-40.000	VRP 375.0000 INCHES
						SCALE .0150

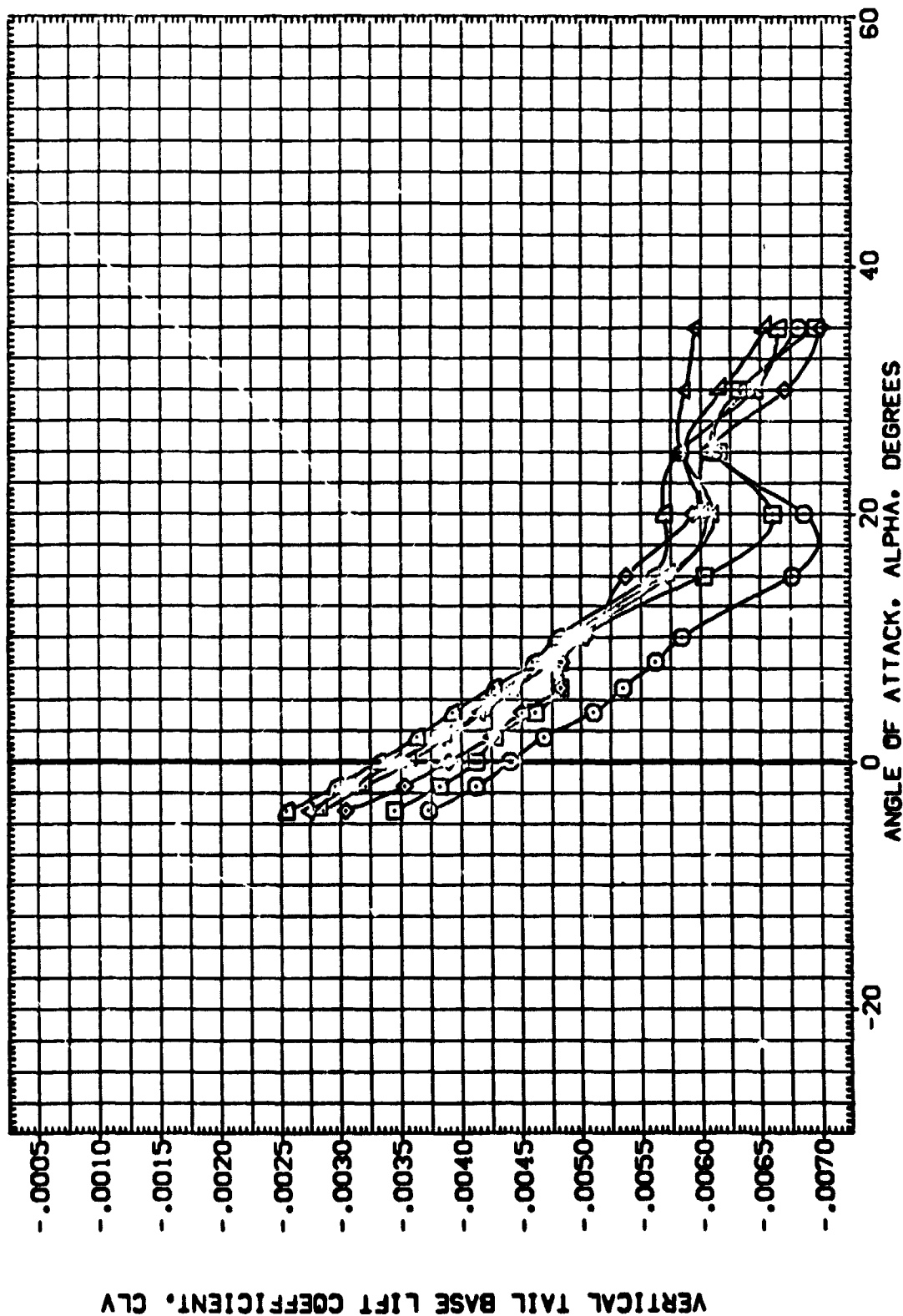


FIG. 4 LONGITUDINAL ELEVON EFFECTIVENESS

(A)MACH = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BOFLAP	SPDRBK	ELEVON	REFERENCE INFORMATION
(F02101)	DA-203 LARC UPVT 1057 140 A/B 0/3	.000	-11.700	54.920	.000	SREF 2690.0000 SQ.FT.
(F02104)	DA-203 LARC UPVT 1057 140 A/B 0/3	.000	-16.300	54.920	.000	LREF 1250.0000 INCHES
(F02105)	DA-203 LARC UPVT 1057 140 A/B 0/3	.000	-11.700	54.920	-40.000	BREF 936.0000 INCHES
(F02107)	DA-203 LARC UPVT 1057 140 A/B 0/3	.000	-11.700	54.920	.000	XPRP 1076.7000 INCHES
(F02110)	DA-203 LARC UPVT 1057 140 A/B 0/3	.000	-16.300	54.920	15.000	YPRP .0000 INCHES
(F02106)	DA-203 LARC UPVT 1057 140 A/B 0/3	.000	-11.700	54.920	-40.000	ZPRP .0000 INCHES
						SCALE .0150

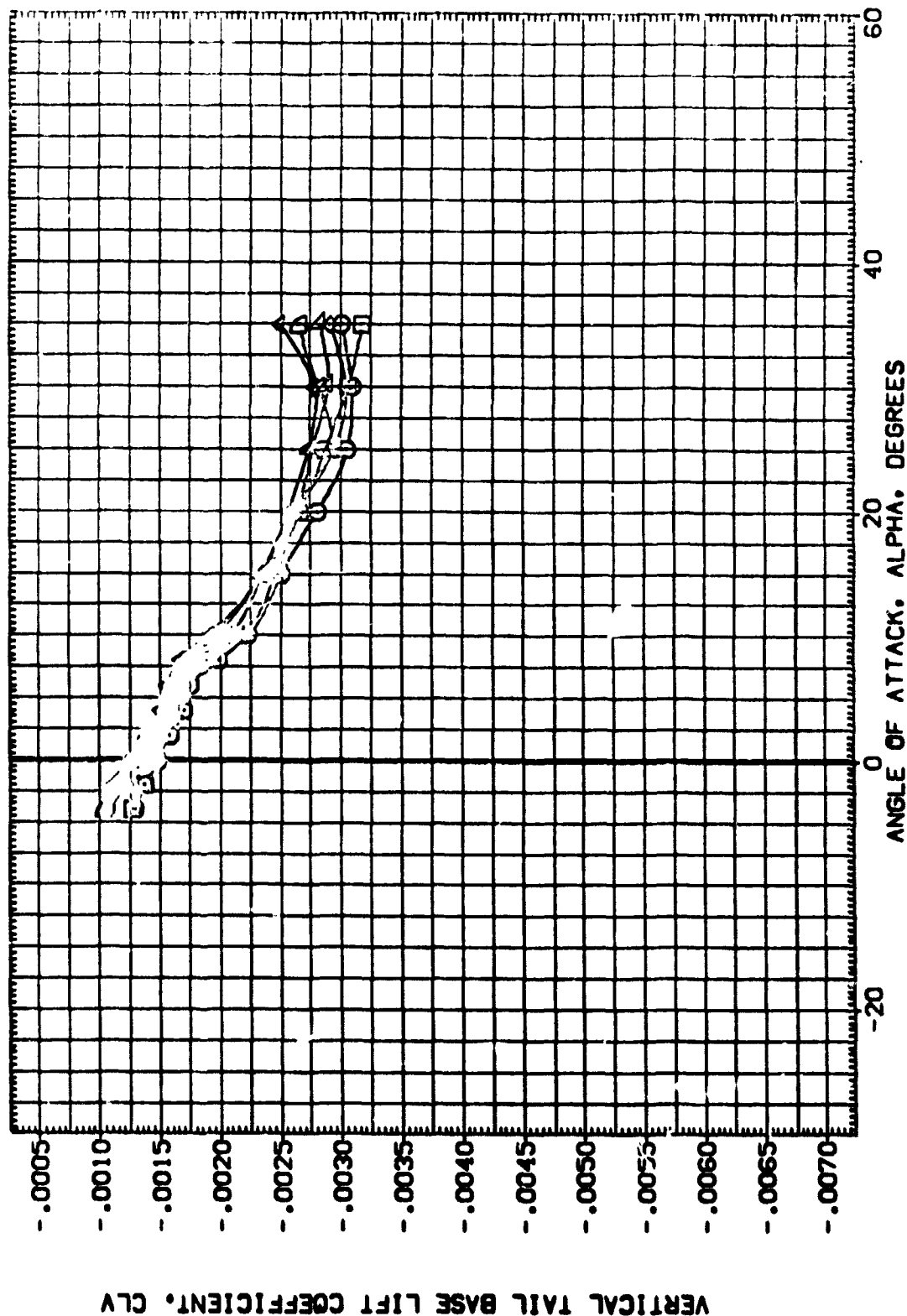


FIG. 4 LONGITUDINAL ELEVON EFFECTIVENESS

(B)MACH = 3.95

DATA SET	SHEET	CONFIGURATION	DESCRIPTION	BETA	BOFLAP	SPDGRK	ELEVON	REFERENCE INFORMATION	SQ.FT.
(F02101)	Q	DA-203	LARC UPNT 1037 140 A/B 0/8	.000	-11.700	54.920	.000	SREF	2650.0000
(F02104)	Q	DA-203	LARC UPNT 1037 140 A/B 0/8	.000	-16.300	54.920	15.000	LREF	1750.3000
(F02105)	Q	DA-203	LARC UPNT 1037 140 A/B 0/8	.000	-11.700	54.920	-40.000	BREF	973.6770
(F02107)	Q	DA-203	LARC UPNT 1037 140 A/B 0/8	.000	-11.700	54.920	15.000	XPRP	1073.7000
(F02110)	Q	DA-203	LARC UPNT 1037 140 A/B 0/8	.000	-16.300	54.920	15.000	YPRP	375.0000
(F02106)	Q	DA-203	LARC UPNT 1037 140 A/B 0/8	.000	-11.700	54.920	-40.000	ZPRP	375.0000
								SCALE	.0150

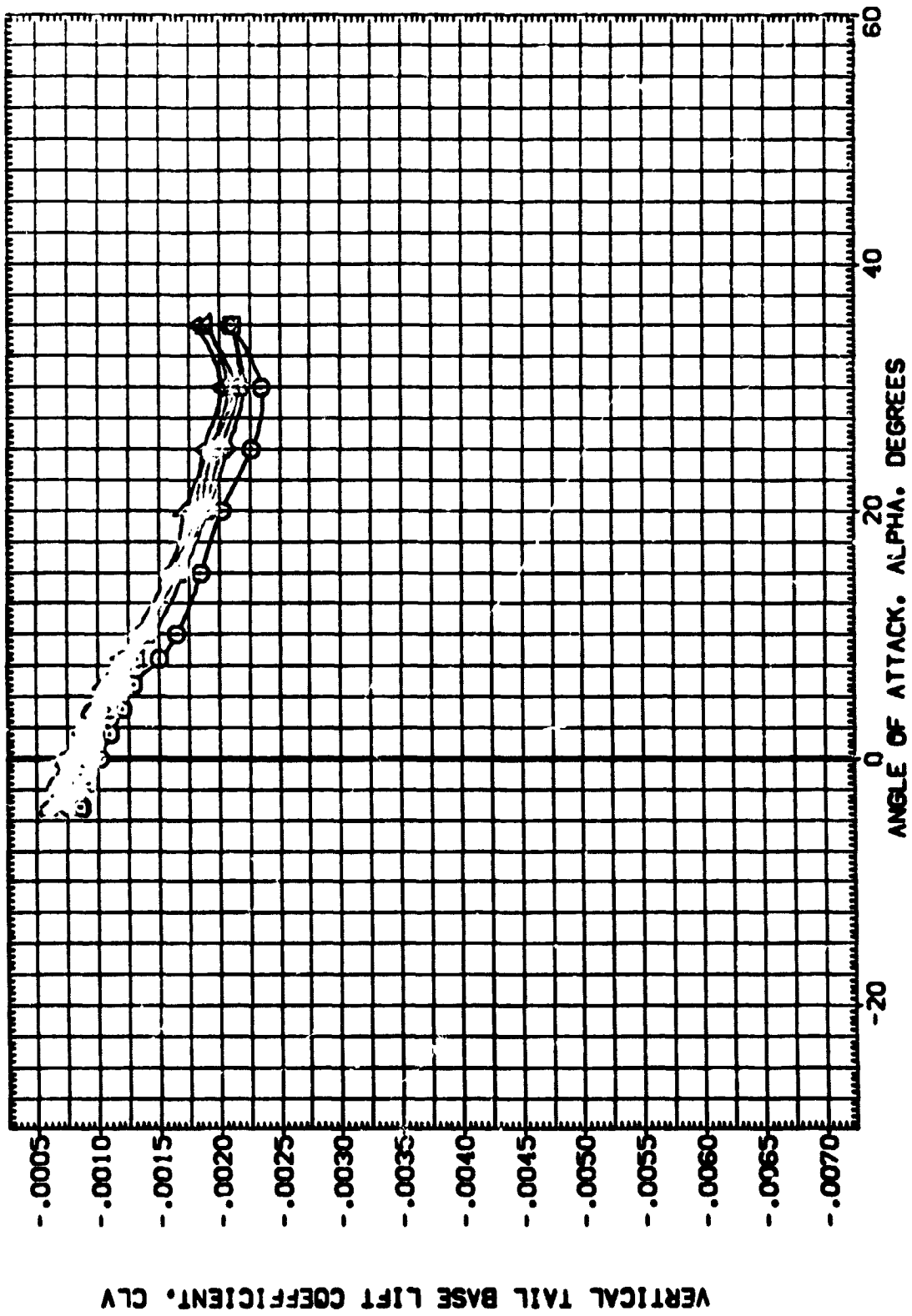


FIG. 4 LONGITUDINAL ELEVON EFFECTIVENESS

(C)MACH = 4.63

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BOFLAP	SPOBRK	ELEVON	REFERENCE INFORMATION
(002101)	0A-203 LARC UPVT 1097 140 A/B 0/0	.000	-11.700	54.920	.000	SREF 2620.0000 50.000
(002104)	0A-203 LARC UPVT 1097 140 A/B 0/0	.000	-16.300	54.920	15.000	LREF 1720.0000 10.000
(002105)	0A-203 LARC UPVT 1097 140 A/B 0/0	.000	-11.700	54.920	-40.000	BREF 925.0000 10.000
(002107)	0A-203 LARC UPVT 1097 140 A/B 0/0	.000	-11.700	54.920	.000	XREF 1075.0000 10.000
(002110)	0A-203 LARC UPVT 1097 140 A/B 0/0	.000	-16.300	54.920	15.000	YREF 600.0000 10.000
(002106)	0A-203 LARC UPVT 1097 140 A/B 0/0	.000	-11.700	54.920	-40.000	ZREF 375.0000 10.000
						SCALE .0150

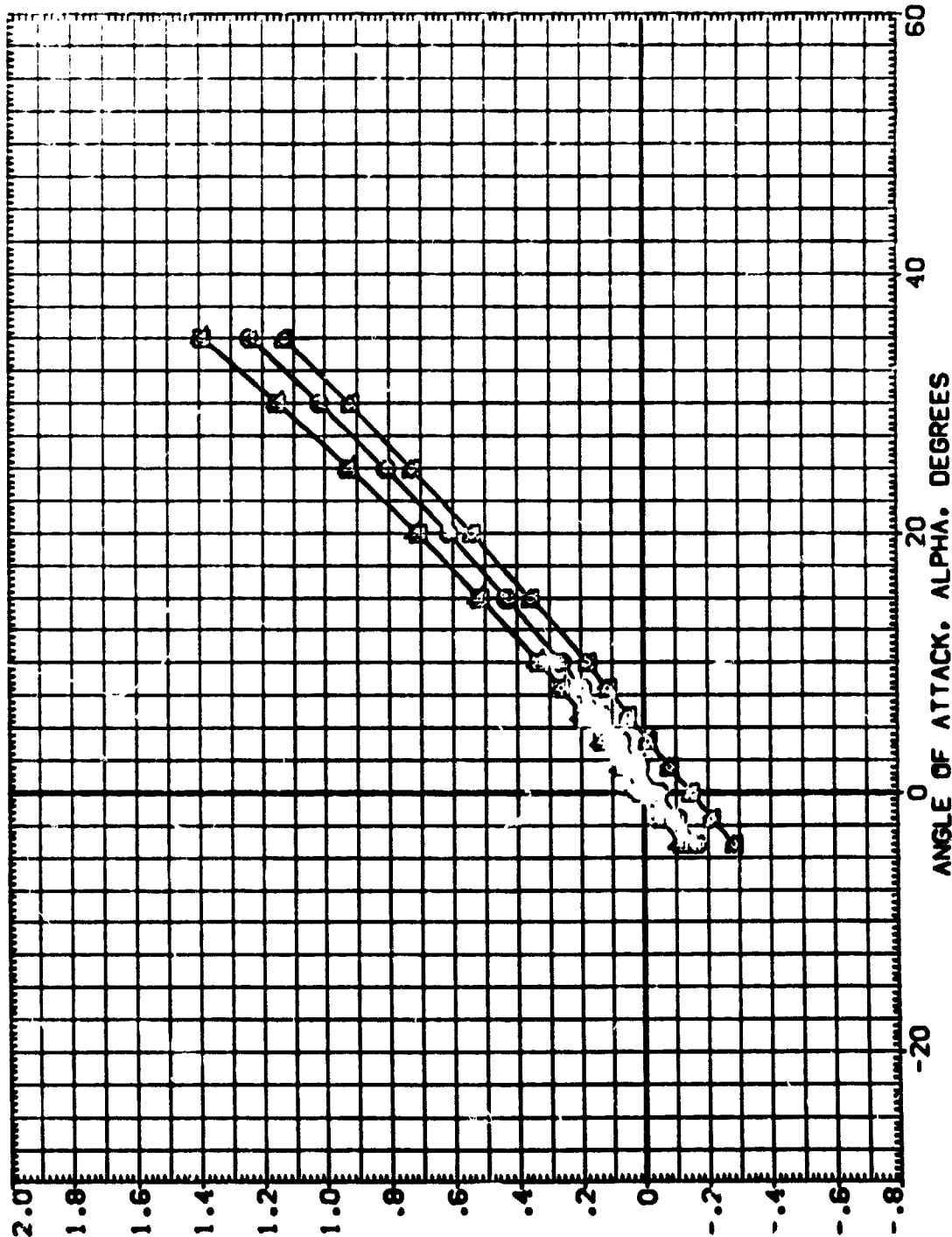


FIG. 4 LONGITUDINAL ELEVON EFFECTIVENESS

(A) MACH = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	EDFLAP	SPDREF	ELEVON	REFERENCE INFORMATION
(002101)	0A-203 LARC UPVT 1057 140 A/B 005	.000	-11.700	54.920	.000	SREF 2650.0000 SQ.FT.
(002102)	0A-203 LARC UPVT 1057 140 A/B 003	.000	-16.300	54.920	15.000	LREF 1750.3700 INCHES
(002103)	0A-203 LARC UPVT 1057 140 A/B 003	.000	-11.700	54.920	-40.000	SREF 535.6300 INCHES
(002104)	0A-203 LARC UPVT 1057 140 A/B 003	.000	-11.700	54.920	15.000	XREF 1076.7000 INCHES
(002105)	0A-203 LARC UPVT 1057 140 A/B 003	.000	-16.300	54.920	15.000	YREF 375.0000 INCHES
(002106)	0A-203 LARC UPVT 1057 140 A/B 003	.000	-11.700	54.920	-40.000	ZREF .0150 SCALE

TOTAL NORMAL-FORCE COEFFICIENT(CN + CNV) : CNT

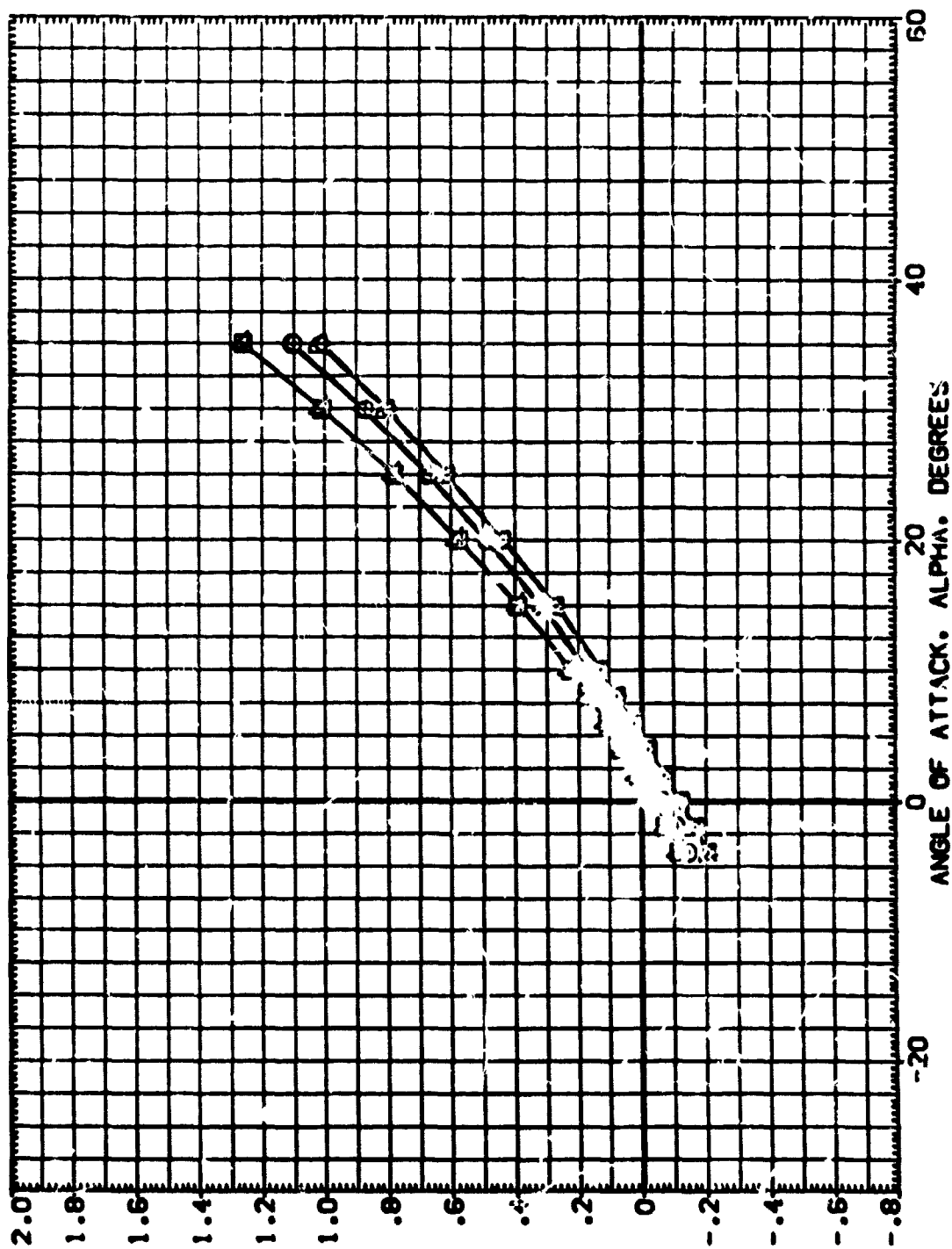
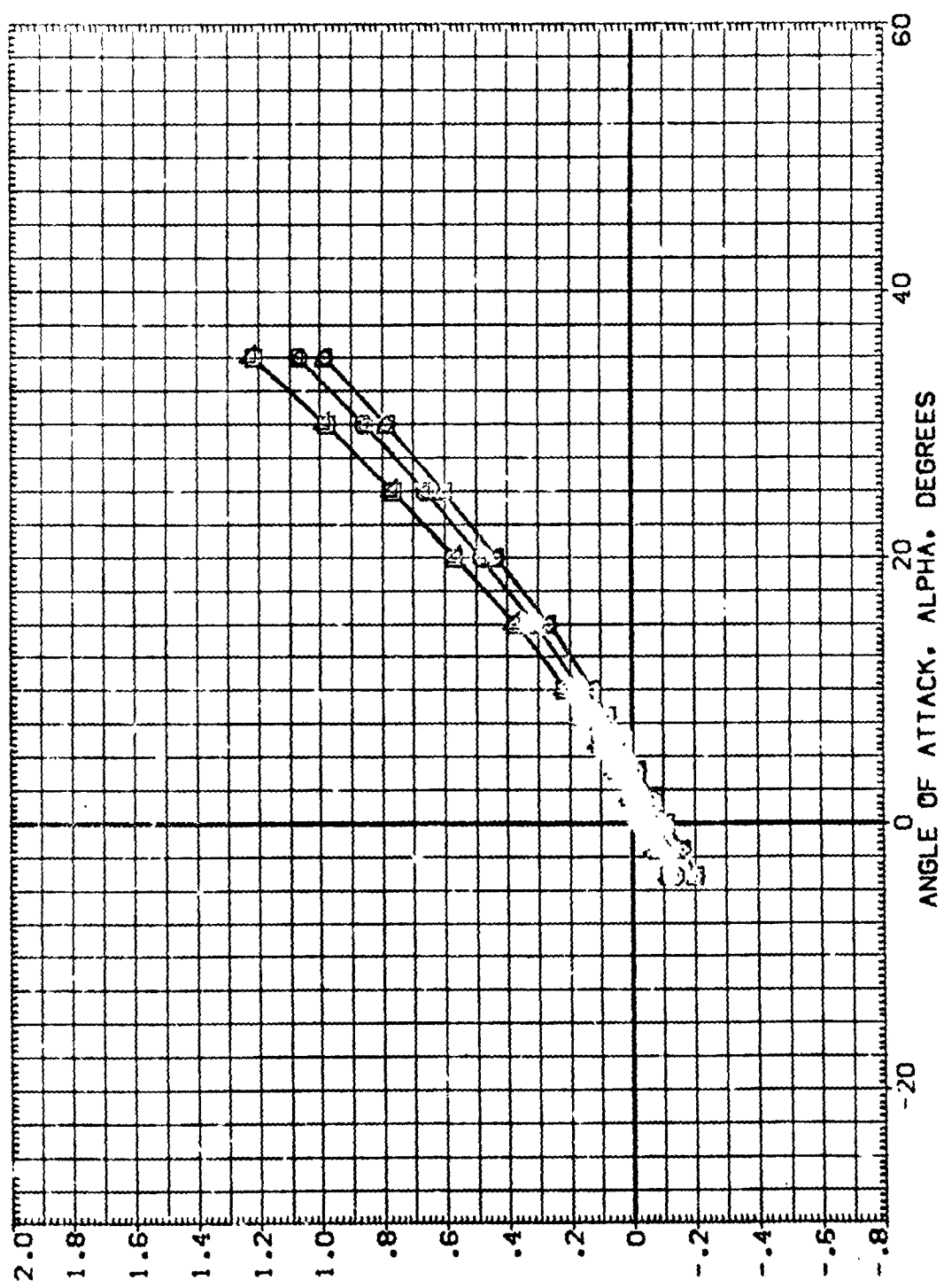


FIG. 4 LONGITUDINAL ELEVON EFFECTIVENESS

0.95 MACH = 3.95

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BOFLAP	SPRGRK	ELEVON	REFERENCE INFORMATION
[002]01]	DA-203 LARC UPVT 1057 140 A/B	.000	-11.700	54.920	.000	SREF 2590.000 SQ.FT.
[002]04]	DA-203 LARC UPVT 1057 140 A/B	.000	-11.700	54.920	15.000	LREF 1200.000 INCHES
[002]06]	DA-203 LARC UPVT 1057 140 A/B	.000	-11.700	54.920	-40.000	BREF 900.000 INCHES
[002]07]	DA-203 LARC UPVT 1057 140 A/B	.000	-11.700	54.920	15.000	YREF 1076.000 INCHES
[002]10]	DA-203 LARC UPVT 1057 140 A/B	.000	-11.700	54.920	15.000	ZREF 375.000 INCHES
[002]105]	DA-203 LARC UPVT 1057 140 A/B	.000	-11.700	54.920	-40.000	SCALE .0150



TOTAL NORMAL-FORCE COEFFICIENT(CN + CNV), CNT

FIG. 4 LONGITUDINAL ELEVON EFFECTIVENESS

(C)MACH = 4.63

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BOFLAP	SPOBRK	ELEVON	REFERENCE INFORMATION
(602101)	DA-203 LARC UPVT 1077 140 A/B C/B	.000	-11.700	54.920	.000	SREF 2090.0000 SQ.FT.
(602104)	DA-203 LARC UPVT 1077 140 A/B C/B	.000	-16.300	54.920	15.000	LREF 1200.0000 INCHES
(602105)	DA-203 LARC UPVT 1097 140 A/B C/B	.000	-11.700	54.920	-40.000	BREF 500.0000 INCHES
(602107)	DA-203 LARC UPVT 1097 140 A/B C/B	.000	-11.700	54.920	.000	XMRP 1073.7000 INCHES
(602110)	DA-203 LARC UPVT 1057 140 A/B C/B	.000	-16.300	54.920	15.000	YMRP .0000 INCHES
(602106)	DA-203 LARC UPVT 1057 140 A/B C/B	.000	-11.700	54.920	-40.000	ZMRP 375.0000 INCHES
						SCALE .0150

TOTAL PITCH.-MOM. COEFF.(MRP = 65.0 PC BL) CLM + CMVFWD . CMTFWD

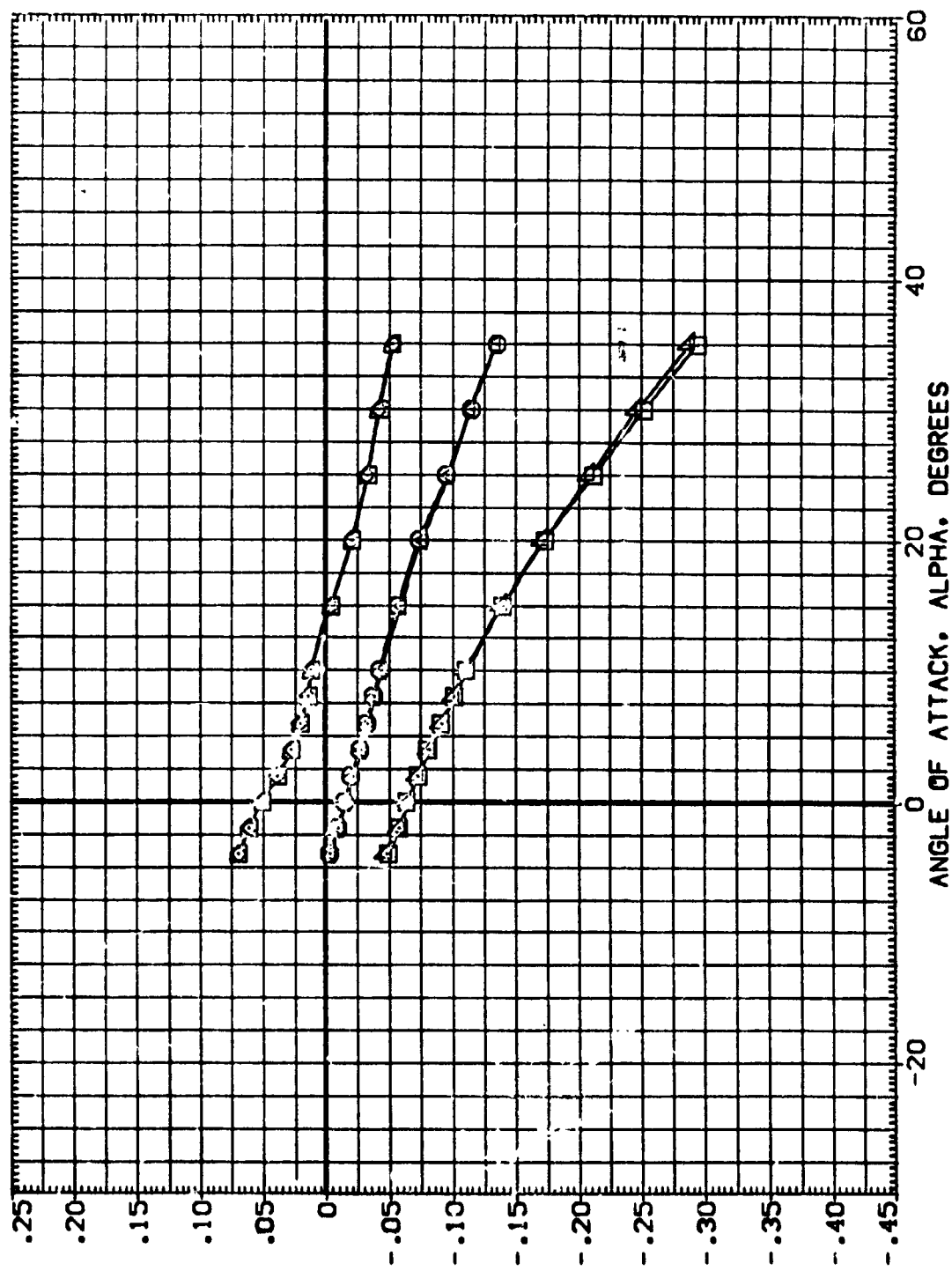


FIG. 4 LONGITUDINAL ELEVON EFFECTIVENESS

(A)MACH = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BOFLAP	SPOBRK	ELEVON	REFERENCE INFORMATION
(002101)	DA-209 LARC UPVT 1097 140 A/B GR3	.000	-11.700	54.920	.000	SREF 2690.0000 SQ.FT.
(002104)	DA-203 LARC UPVT 1097 140 A/B GR3	.000	-16.300	54.920	15.000	LREF 1293.0000 INCHES
(002105)	DA-203 LARC UPVT 1097 140 A/B GR3	.000	-11.700	54.920	-40.000	BREF 900.0000 INCHES
(002107)	DA-203 LARC UPVT 1097 140 A/B GR3	.000	-11.700	54.920	.000	XMRP 1076.0000 INCHES
(002110)	DA-203 LARC UPVT 1097 140 A/B GR3	.000	-16.300	54.920	15.000	YMRP 375.0000 INCHES
(002106)	DA-203 LARC UPVT 1097 140 A/B GR3	.000	-11.700	54.920	-40.000	ZMRP 0.0000 INCHES
						SCALE .0150

TOTAL PITCH.-MOM. COEFF. (MRP = 65.0 PC BL) CLM + CMVFWD . CMTFWD

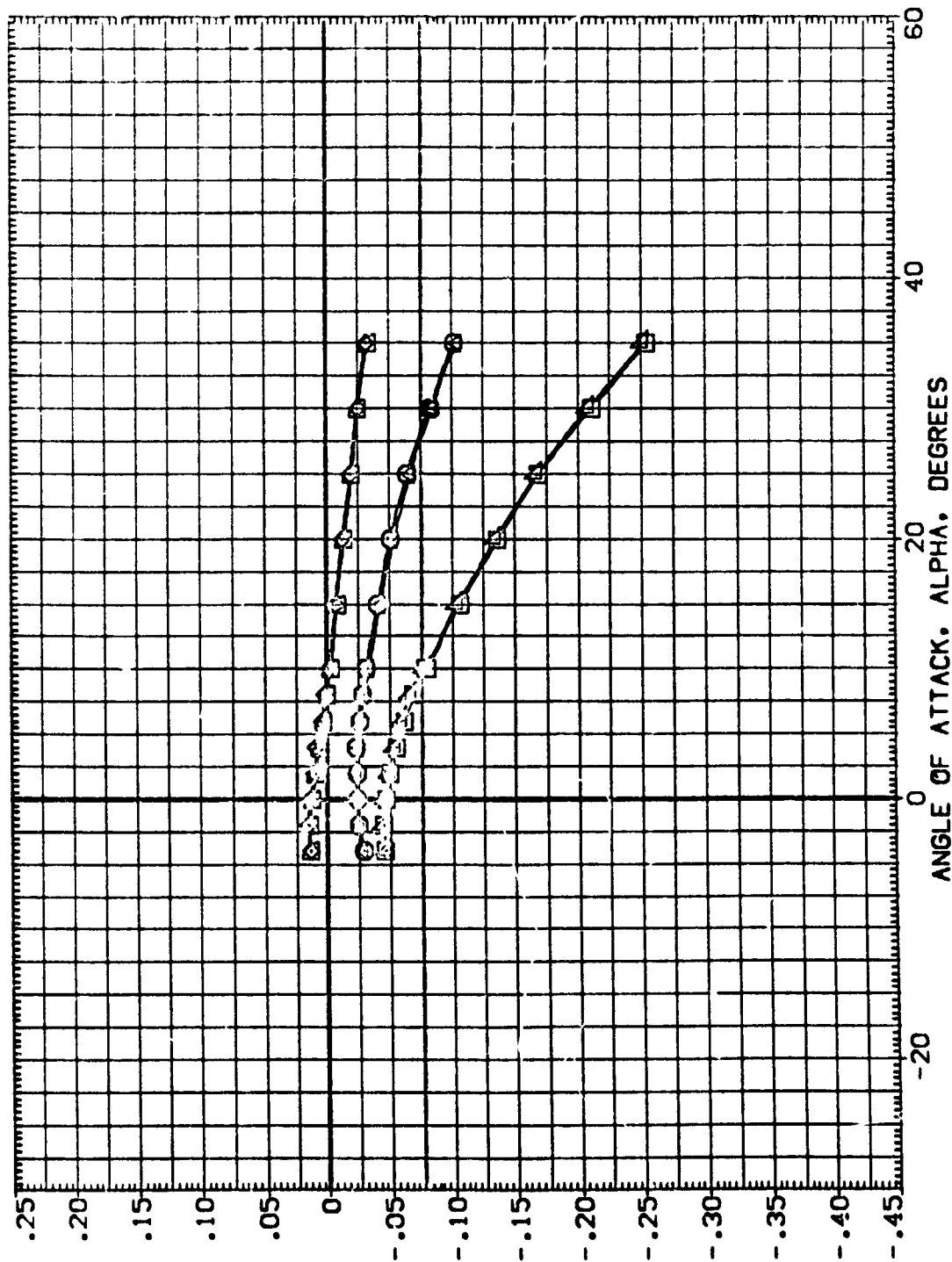


FIG. 4 LONGITUDINAL ELEVON EFFECTIVENESS

(B)MACH = 3.95

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BDLAP	SPOBRK	ELEVON	REFERENCE INFORMATION
[002101]	BA-203 LARC UPVT 1037 140 A/B DB8	.000	-11.700	54.920	.000	SREF 2600.0000 SQ.FT.
[002104]	BA-203 LARC UPVT 1037 140 A/B DB8	.000	-16.300	54.920	15.000	LREF 1200.0000 INCHES
[002105]	BA-203 LARC UPVT 1037 140 A/B DB8	.000	-11.700	54.920	-40.000	BREF 500.0000 INCHES
[002107]	BA-203 LARC UPVT 1037 140 A/B DB8	.000	-11.700	54.920	.000	XMRP 1070.7000 INCHES
[002110]	BA-203 LARC UPVT 1037 140 A/B DB8	.000	-16.300	54.920	15.000	YMRP .0000 INCHES
[002106]	BA-203 LARC UPVT 1037 140 A/B DB8	.000	-11.700	54.920	-40.000	ZMRP 375.0000 INCHES
						SCALE .0150

TOTAL PITCH.-MOM. COEFF.(MRP = 65.0 PC BL) CLM +CMFWD . CMTFWD

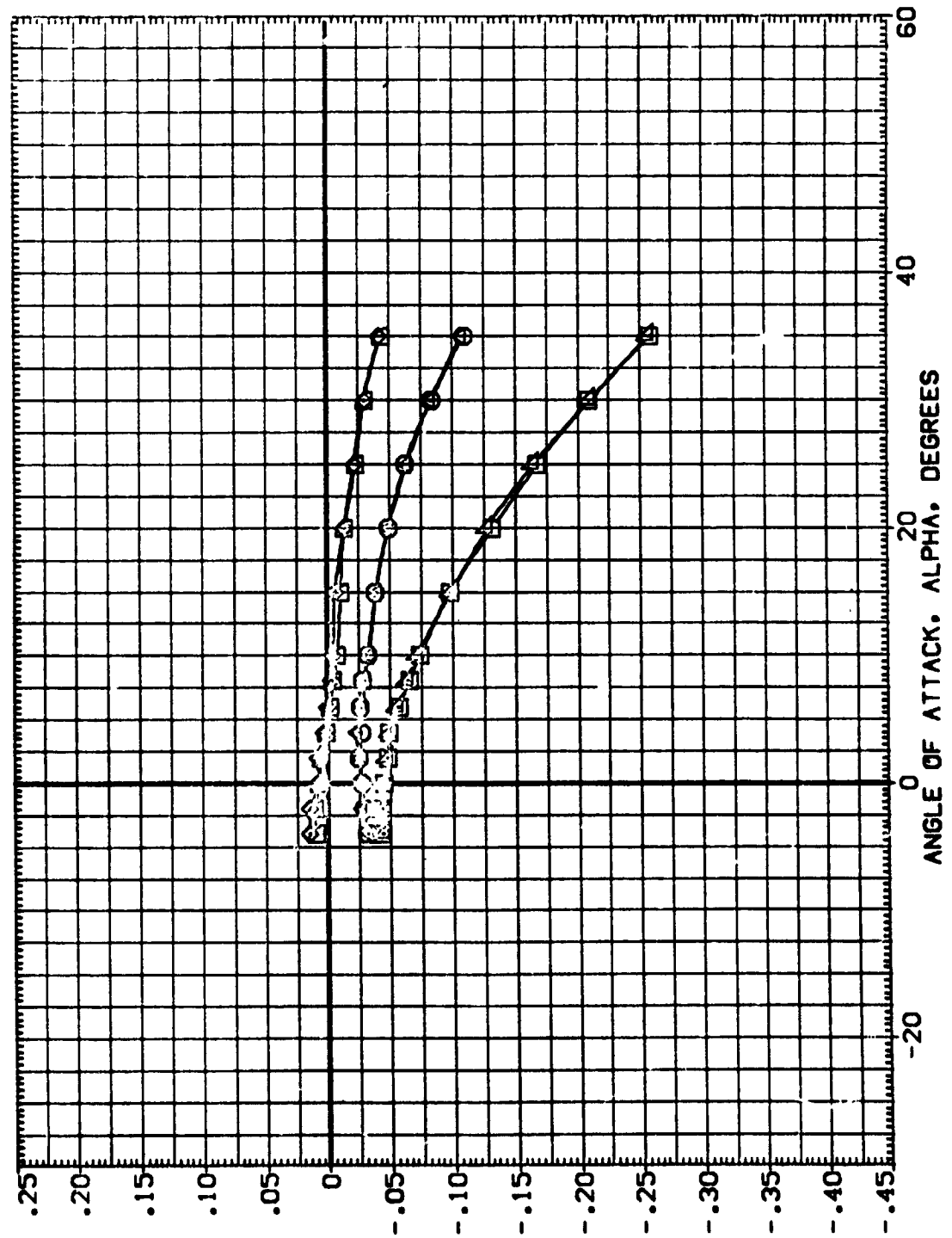


FIG. 4 LONGITUDINAL ELEVON EFFECTIVENESS

(C)MACH = 4.63

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BD FLAP	SPDBRK	ELEVON	REFERENCE INFORMATION
(G02101)	DA-203 LARC UPVT 1037 140 A/B 038 +DUMMY STING	.000	-11.700	54.920	.000	SREF 2650.0000 SQ.FT.
(G02104)	DA-203 LARC UPVT 1037 140 A/B 033 +DUMMY STING	.000	-16.300	54.920	15.000	LREF 1230.3000 INCHES
(G02105)	DA-203 LARC UPVT 1037 140 A/B 038 +DUMMY STING	.000	-11.700	54.920	-40.000	BREF 935.6000 INCHES
(G02107)	DA-203 LARC UPVT 1037 140 A/B 033	.000	-11.700	54.920	.000	XMRP 1075.7000 INCHES
(G02110)	DA-203 LARC UPVT 1037 140 A/B 038	.000	-16.300	54.920	15.000	YMRP .0000 INCHES
(G02106)	DA-203 LARC UPVT 1037 140 A/B 038	.000	-11.700	54.920	-40.000	ZMRP 375.0000 INCHES
						SCALE .0150

TOTAL PITCH.-MQM. COEFF.(MRP = 67.5 PC BL) CLYAF + CMVAF + CMTAF

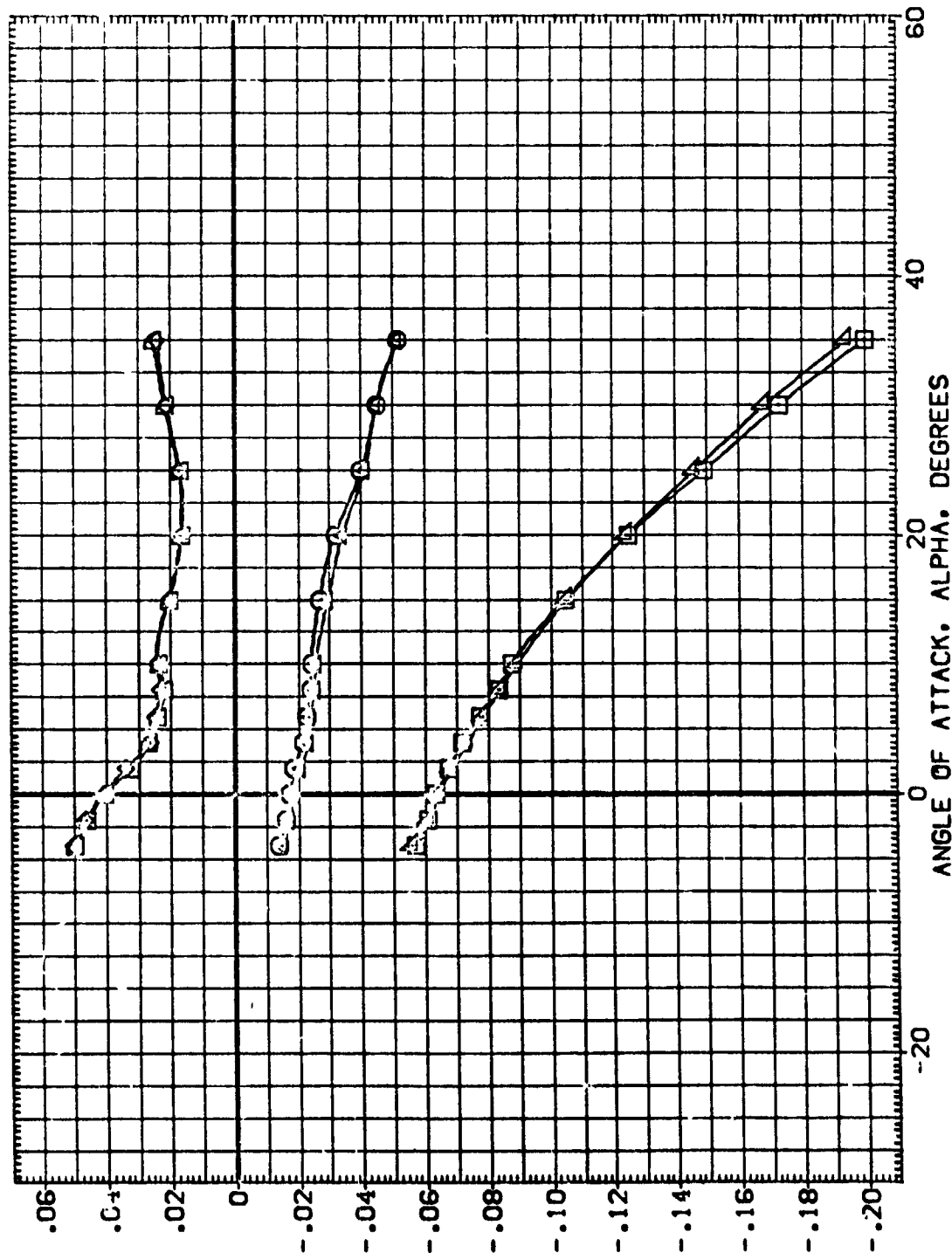


FIG. 4 LONGITUDINAL ELEVON EFFECTIVENESS

(A)MACH = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BDF LAP	SFC-MK	ELEVON	REFERENCE INFORMATION
[002101]	0A-203 LARC LPVT 1077 140 A/B 078	.000	-11.700	54.920	.000	SREF 2690.0000 SQ. FT.
[002104]	0A-203 LARC LPVT 1077 140 A/B 073	.000	-16.300	54.920	15.000	UREF 1290.3000 INCHES
[002105]	0A-203 LARC LPVT 1077 140 A/B 073	.000	-11.700	54.920	-40.000	BREF 936.6900 INCHES
[002107]	0A-203 LARC LPVT 1077 140 A/B 073	.000	-11.700	54.920	.000	YMRP 1076.7000 INCHES
[002110]	0A-203 LARC LPVT 1077 140 A/B 078	.000	-16.300	54.920	15.000	ZMRP .0000 INCHES
[002106]	0A-203 LARC LPVT 1077 140 A/B 078	.000	-11.700	54.920	-40.000	SCALE .0150

TOTAL PITCH.-MOM. COEFF. (MRP = 67.5 PC BL) CLMAFT + CMVAFT + CMTAFT

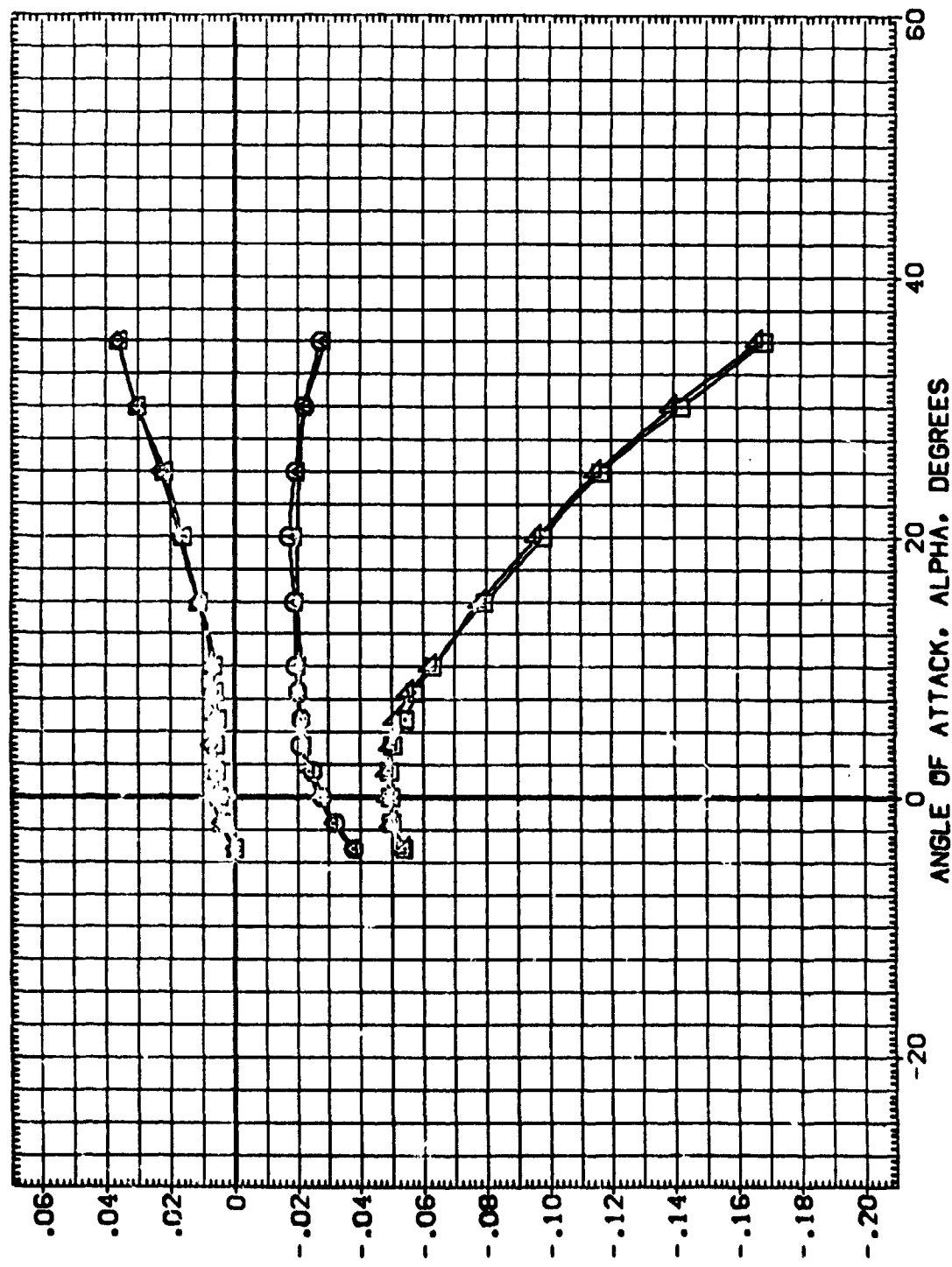


FIG. 4 LONGITUDINAL ELEVON EFFECTIVENESS

(B)MACH = 3.95



TOTAL PITCH, -MOM. COEFF. (MRP = 67.5 % BL) CLMAFT + CMVAFT + CMIAFT

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BOFLAP	SPORRK	ELEVON	REFERENCE INFORMATION
[002101]	DA-203 LANC UPVT 1057 140 A/B C/B	.000	-11.700	54.920	.000	SREF 2650.0000 50.000
[002104]	DA-203 LANC UPVT 1057 140 A/B C/B	.000	-11.700	54.920	15.000	LREF 1220.0000 100.000
[002105]	DA-203 LANC UPVT 1057 140 A/B C/B	.000	-11.700	54.920	-40.000	BREF 920.0000 100.000
[002107]	DA-203 LANC UPVT 1057 140 A/B C/B	.000	-11.700	54.920	15.000	YREF 1070.0000 100.000
[002110]	DA-203 LANC UPVT 1057 140 A/B C/B	.000	-11.700	54.920	15.000	ZREF 375.0000 100.000
[002106]	DA-203 LANC UPVT 1057 140 A/B C/B	.000	-11.700	54.920	-40.000	SCALE .0150 100.000

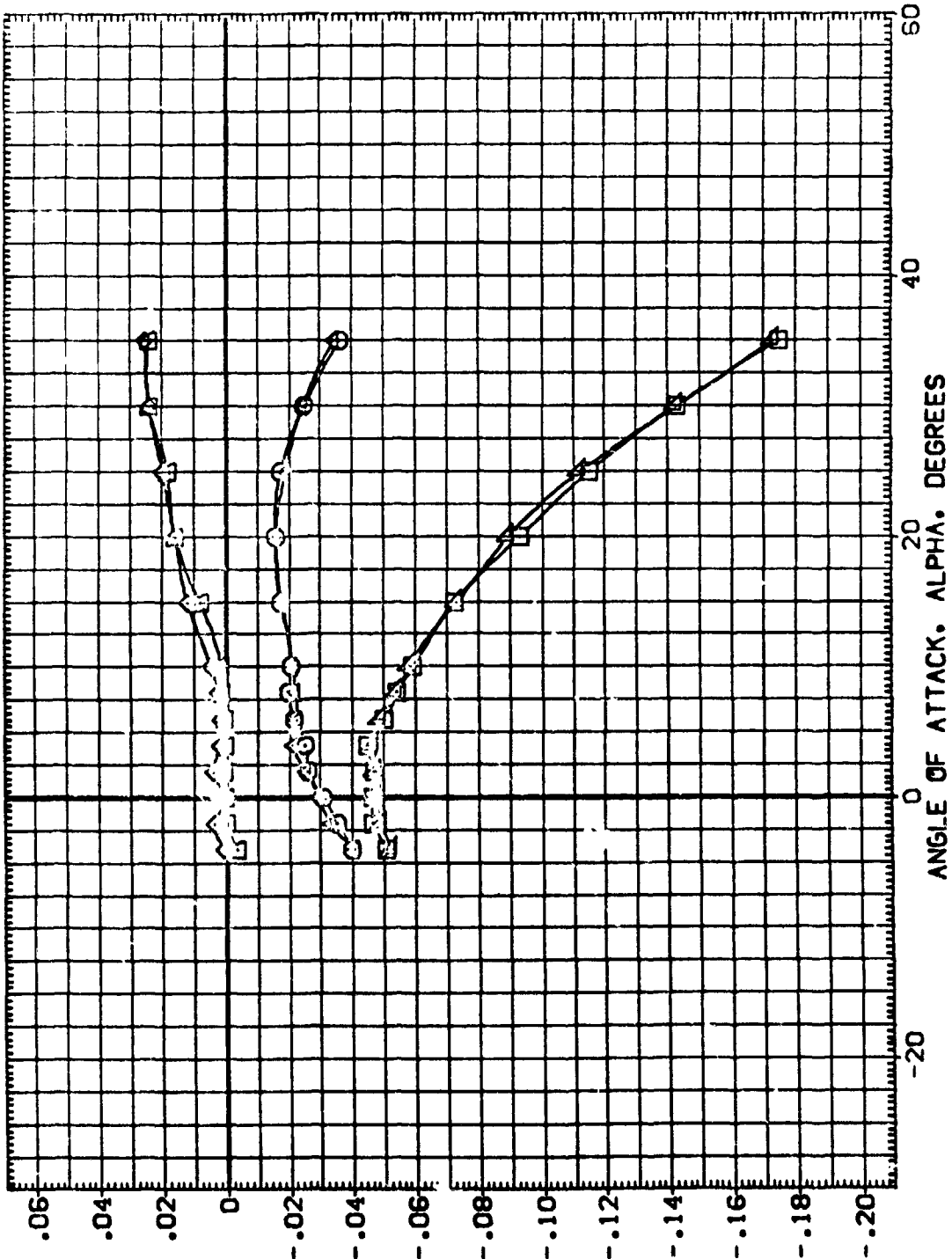
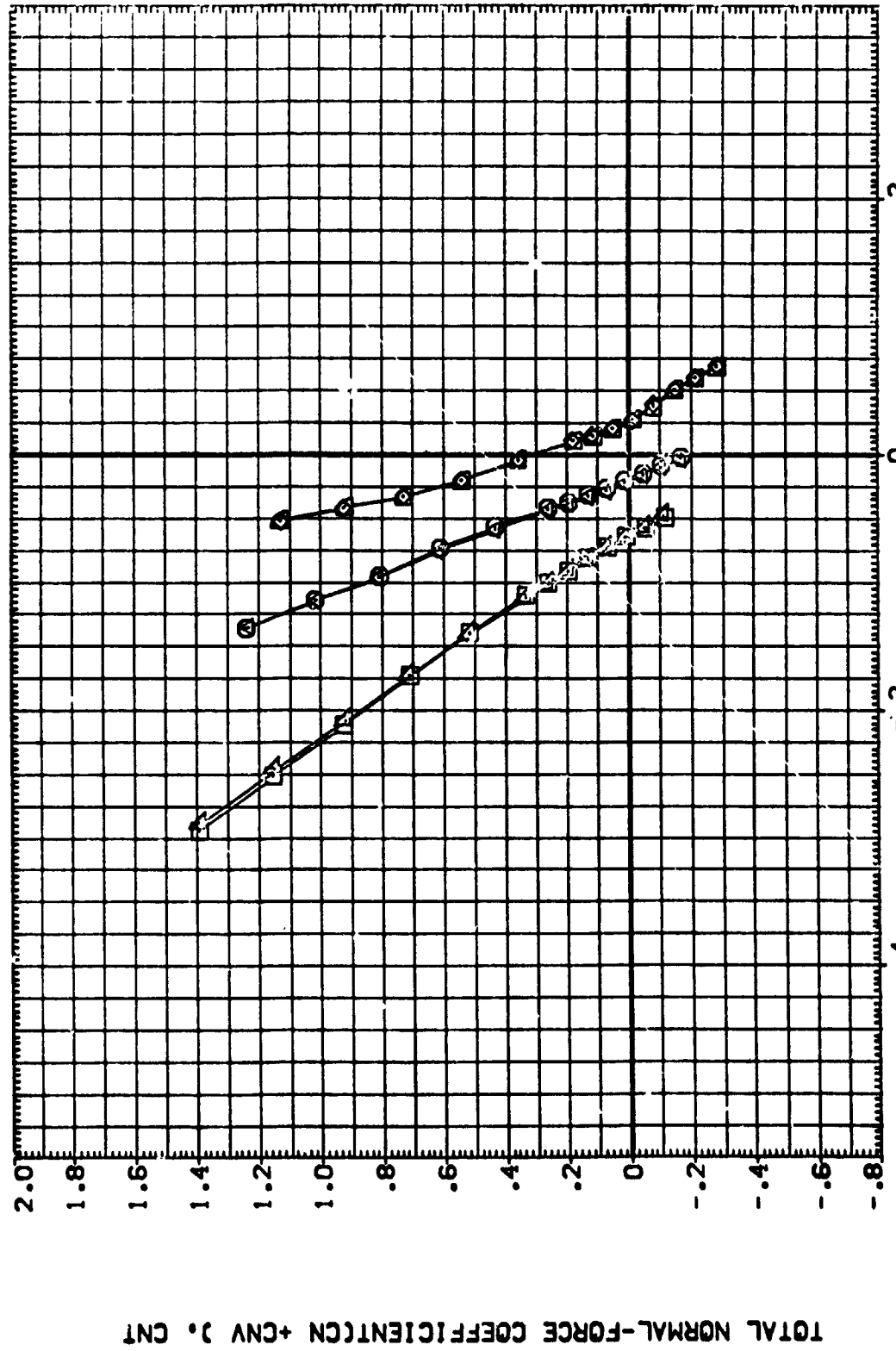


FIG. 4 LONGITUDINAL ELEVON EFFECTIVENESS
(C)MACH = 4.63

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BOFLAP	SPOBRK	ELEVON	REFERENCE INFORMATION	SO.FT.
[G02101]	0A-203 LARC UPVT 1037 140 A/B OR	.000	-11.700	54.920	.000	SREF 2690.0000	INCHES
[G02104]	0A-203 LARC UPVT 1037 140 A/B OR	.000	-11.700	54.920	15.000	LREF 1230.5000	INCHES
[G02105]	0A-203 LARC UPVT 1037 140 A/B OR	.000	-11.700	54.920	-40.000	BREF 923.0000	INCHES
[G02107]	0A-203 LARC UPVT 1037 140 A/B OR	.000	-11.700	54.920	.000	XMRP 1076.7000	INCHES
[G02110]	0A-203 LARC UPVT 1037 140 A/B OR	.000	-11.700	54.920	15.000	YMRP 375.0000	INCHES
[G02106]	0A-203 LARC UPVT 1037 140 A/B OR	.000	-11.700	54.920	-40.000	ZMRP 375.0000	INCHES
						SCALE .0150	SCALE

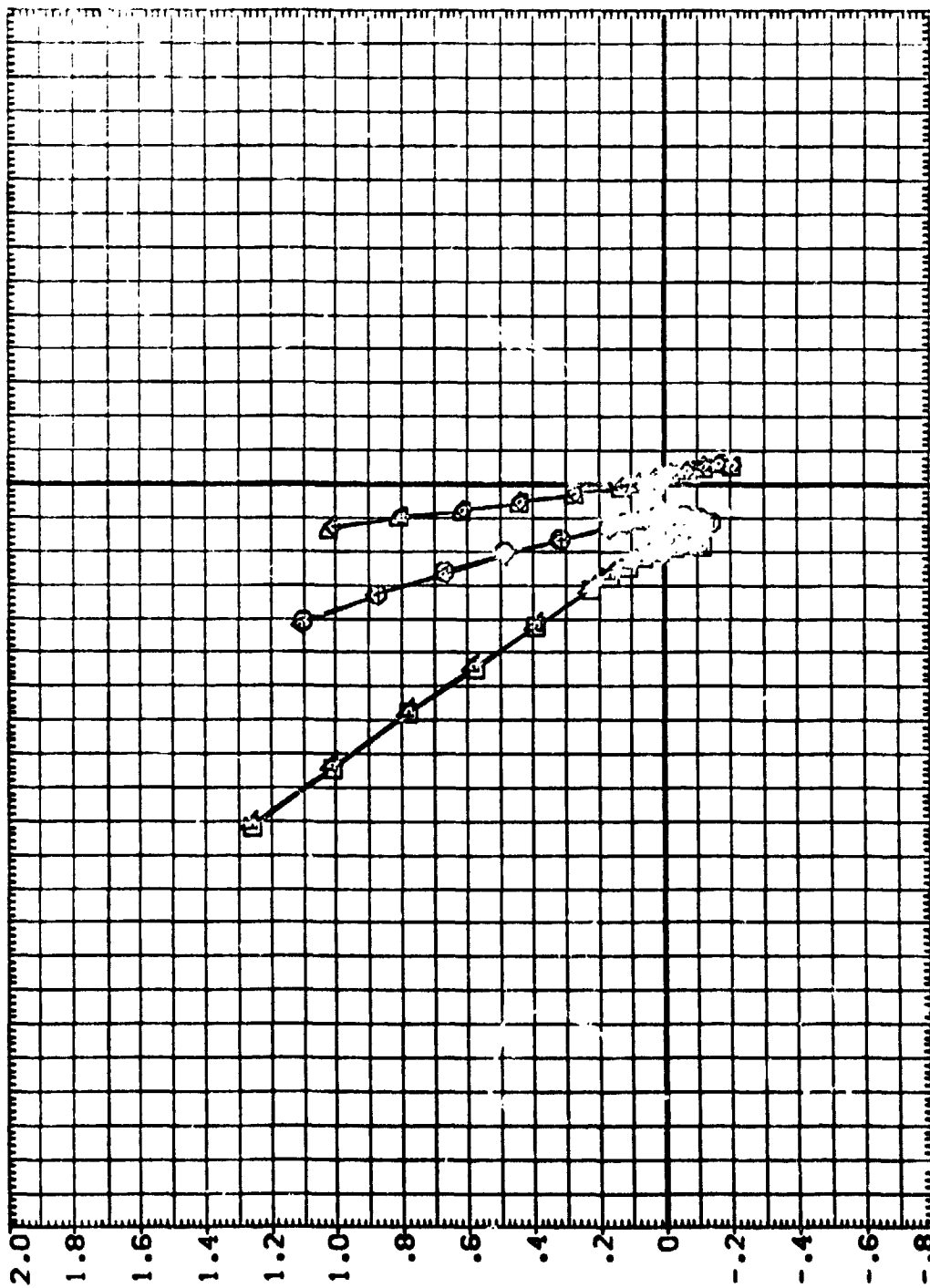


TOTAL PITCH-MOM. COEFF. (MRP = 65.0 PC BL) CLM + CMVFWD .2

FIG. 4 LONGITUDINAL ELEVON EFFECTIVENESS

(A)MACH = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BDF LAP	SPOBARK	ELEVON	REFERENCE INFORMATION
[G02101]	GA-203 LARC UPNT 1037 140 A/B 0/0	.000	-11.700	54.920	.000	SREF 2590.0000 SD. FT.
[G02104]	GA-203 LARC UPNT 1037 140 A/B 0/3	.000	-11.700	54.920	.000	LREF 1200.0000 INCHES
[G02105]	GA-203 LARC UPNT 1037 140 A/B 0/3	.000	-11.700	54.920	.000	BREF 900.0000 INCHES
[G02107]	GA-203 LARC UPNT 1037 140 A/B 0/3	.000	-11.700	54.920	.000	XREF 1076.0000 INCHES
[G02110]	GA-203 LARC UPNT 1037 140 A/B 0/3	.000	-11.700	54.920	.000	YREF 0.0000 INCHES
[G02106]	GA-203 LARC UPNT 1037 140 A/B 0/3	.000	-11.700	54.920	.000	ZREF 0.0000 INCHES
						SCALE 0.150 SCALE

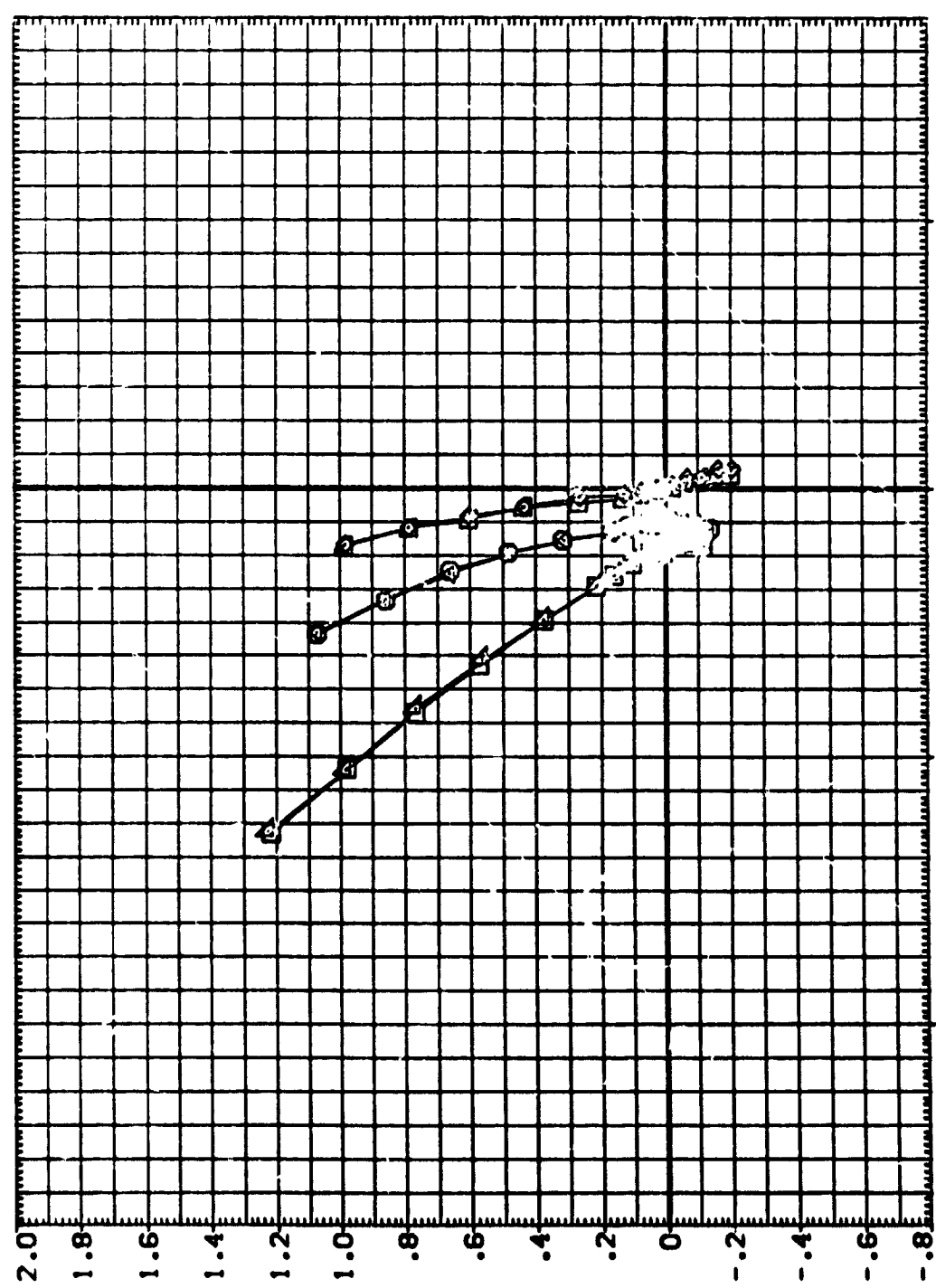


TOTAL PITCH.-MOM. COEFF. (MRP = 65.0 PC BL) CLM + CMVFWD . CMVFWD .2

FIG. 4 LONGITUDINAL ELEVON EFFECTIVENESS

(B)MACH = 3.95

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BD FLAP	SPOBRK	ELEVON	REFERENCE INFORMATION
(G22101)	GA-203 LARC UPVT 1037 140 A/B 0RB	.000	-11.700	54.920	.000	SREF 2690.0000 SQ.FT.
(G22104)	GA-203 LARC UPVT 1037 140 A/B 5RB	.000	-16.300	54.920	15.000	LREF 1220.3200 INCHES
(G22105)	GA-203 LARC UPVT 1037 140 A/B 0RB	.000	-11.700	54.920	-40.000	BREF 900.0000 INCHES
(G22107)	GA-203 LARC UPVT 1037 140 A/B 0RB	.000	-11.700	54.920	.000	XMRP 1076.7000 INCHES
(G22110)	GA-203 LARC UPVT 1037 140 A/B 0RB	.000	-16.300	54.920	15.000	YMRP .0000 INCHES
(G22106)	GA-203 LARC UPVT 1037 140 A/B 0RB	.000	-11.700	54.920	-40.000	ZMRP 375.0000 INCHES
						SCALE .0150

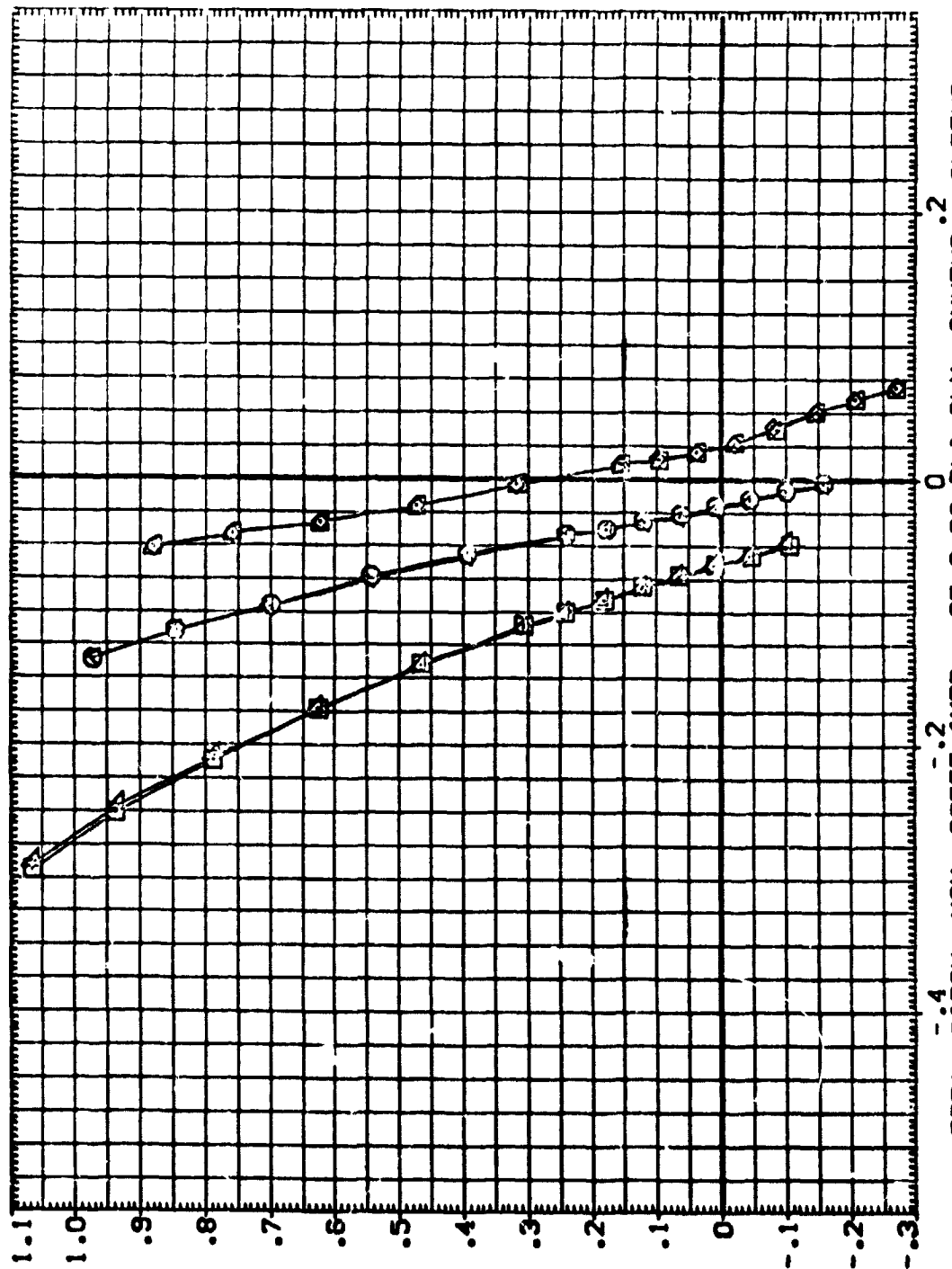


TOTAL PITCH.-MOM. COEFF.(MRP = 65.0 PC BL) CLM +CMVFD .2 CMTFWD

FIG. 4 LONGITUDINAL ELEVON EFFECTIVENESS

(C)MACH = 4.63

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BOFLAP	SPDRK	ELEVON	REFERENCE INFORMATION
(002101)	BA-203 LARC UPVT 1037 140 A/B 0/0	.000	-11.700	54.920	.000	SREF 2650.0000 SO.FT.
(002104)	BA-203 LARC UPVT 1037 140 A/B 0/3	.000	-11.700	54.920	15.000	LREF 1200.3000 INCHES
(002105)	BA-203 LARC UPVT 1037 140 A/B 0/3	.000	-11.700	54.920	-40.000	BREF 925.6000 INCHES
(002107)	BA-203 LARC UPVT 1037 140 A/B 0/3	.000	-11.700	54.920	15.000	XMRP 1076.7000 INCHES
(002110)	BA-203 LARC UPVT 1037 140 A/B 0/3	.000	-11.700	54.920	15.000	YMRP .0000 INCHES
(002106)	BA-203 LARC UPVT 1037 140 A/B 0/3	.000	-11.700	54.920	-40.000	ZMRP 375.0000 INCHES
					SCALE	.0150



TOTAL PITCH.-MOM. COEFF.(CPR = 65.0 PC BL) CLM +CMTFWD .2

FIG. 4 LONGITUDINAL ELEVON EFFECTIVENESS

(A)MACH = 2.50



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BOFLAP	SPDRBK	ELEVON	REFERENCE INFORMATION	SD, FT.
(002)01	DA-208 LARC UPVT 1057 140 A/B 008	.000	-11.700	54.520	.000	SREF	2690.0000
(002)04	DA-208 LARC UPVT 1057 140 A/B 003	.000	-16.300	54.520	.000	LREF	1290.3000
(002)05	DA-208 LARC UPVT 1057 140 A/B 003	.000	-11.700	54.520	15.000	BREF	303.6000
(002)07	DA-208 LARC UPVT 1057 140 A/B 003	.000	-11.700	54.520	15.000	YMRP	1076.7000
(002)10	DA-208 LARC UPVT 1057 140 A/B 003	.000	-16.300	54.520	15.000	ZMRP	375.0000
(002)06	DA-208 LARC UPVT 1057 140 A/B 008	.000	-11.700	54.520	-40.000	SCALE	.0150

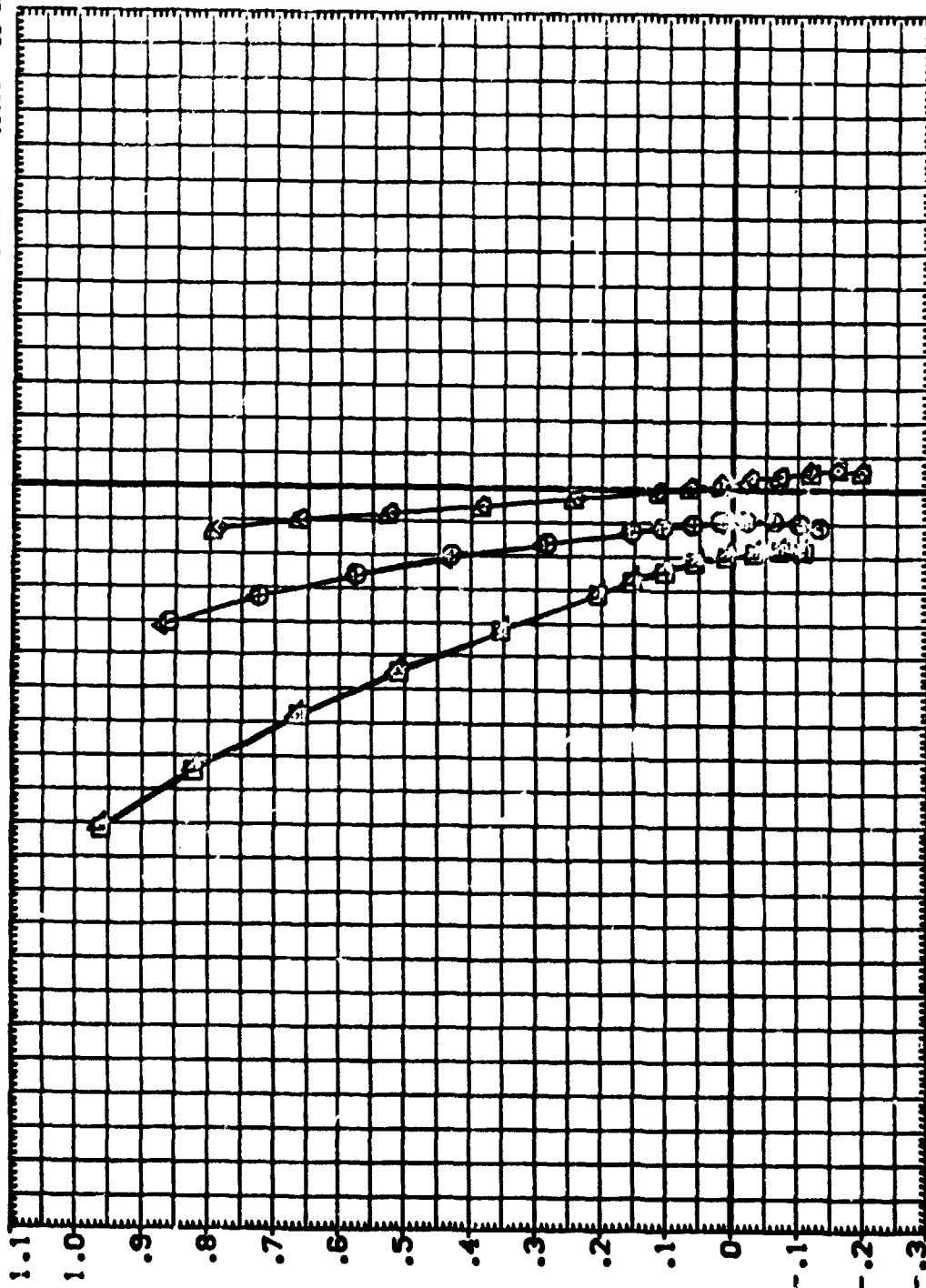
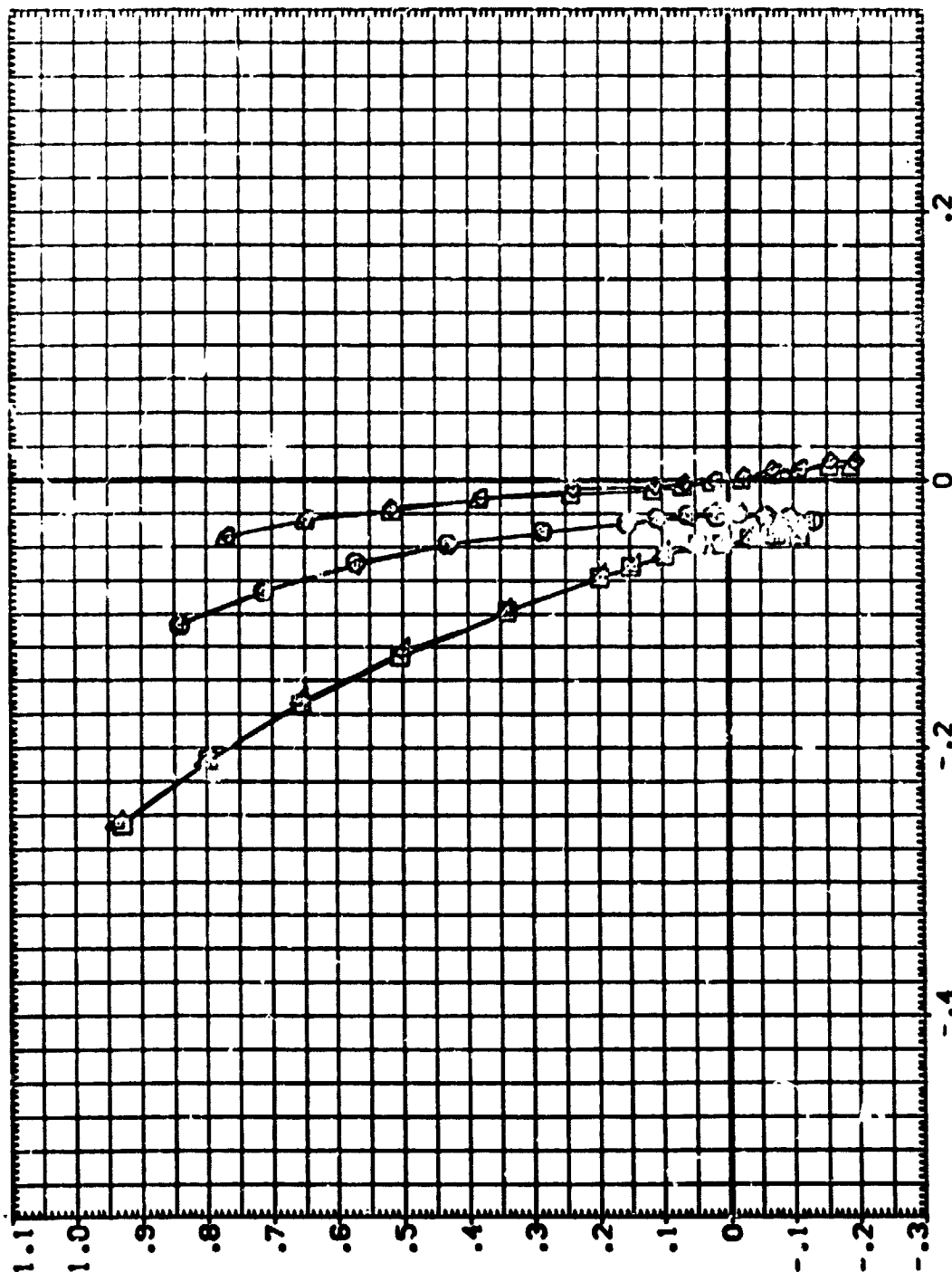


FIG. 4 LONGITUDINAL ELEVON EFFECTIVENESS

(B)MACH = 3.95

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	+QUARTY STING	BETA	BD FLAP	SPD BRK	ELEVON	REFERENCE INFORMATION
(002101)	0A-208 LARC UPVT 1077 140 A/B 078	+QUARTY STING	.000	-11.700	54.920	.000	SREF 2650.0000 30. FT.
(002104)	0A-208 LARC UPVT 1037 140 A/B 078	+QUARTY STING	.000	-16.700	54.920	15.000	LREF 1220.3000 INCHES
(002105)	0A-208 LARC UPVT 1037 140 A/B 078	+QUARTY STING	.000	-11.700	54.920	-40.000	BREF 973.0000 INCHES
(002107)	0A-208 LARC UPVT 1037 140 A/B 078		.000	-11.700	54.920	15.000	YMRP 1073.7000 INCHES
(002110)	0A-208 LARC UPVT 1037 140 A/B 078		.000	-16.700	54.920	15.000	ZMRP .0000 INCHES
(002106)	0A-208 LARC UPVT 1037 140 A/B 078		.000	-11.700	54.920	-40.000	SCALE 375.0000 31.50



TOTAL PITCH.-MOM. COEFF.(MRP = 65.0 PC BL) CLM +CMVFW + CMTFWD .2

FIG. 4 LONGITUDINAL ELEVON EFFECTIVENESS

(C)MACH = 4.63

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BOFLAP	SPDRK	ELEVON	REFERENCE INFORMATION
(022101)	8A-208 LARC UPVT 1057 140 A/B 028	.000	-11.700	54.920	.000	SREF 2593.0000
(022102)	8A-208 LARC UPVT 1057 140 A/B 028	.000	-11.700	54.920	15.000	LREF 1293.3000
(022103)	8A-208 LARC UPVT 1057 140 A/B 028	.000	-11.700	54.920	-40.000	BREF 933.6000
(022104)	8A-208 LARC UPVT 1057 140 A/B 028	.000	-11.700	54.920	15.000	XTRP 1076.1000
(022105)	8A-208 LARC UPVT 1057 140 A/B 028	.000	-11.700	54.920	-40.000	YTRP .0000
(022106)	8A-208 LARC UPVT 1057 140 A/B 028	.000	-11.700	54.920	-40.000	ZTRP .0000
		.000	-11.700	54.920	-40.000	SCALE 375.0150
		.000	-11.700	54.920	-40.000	SCALE

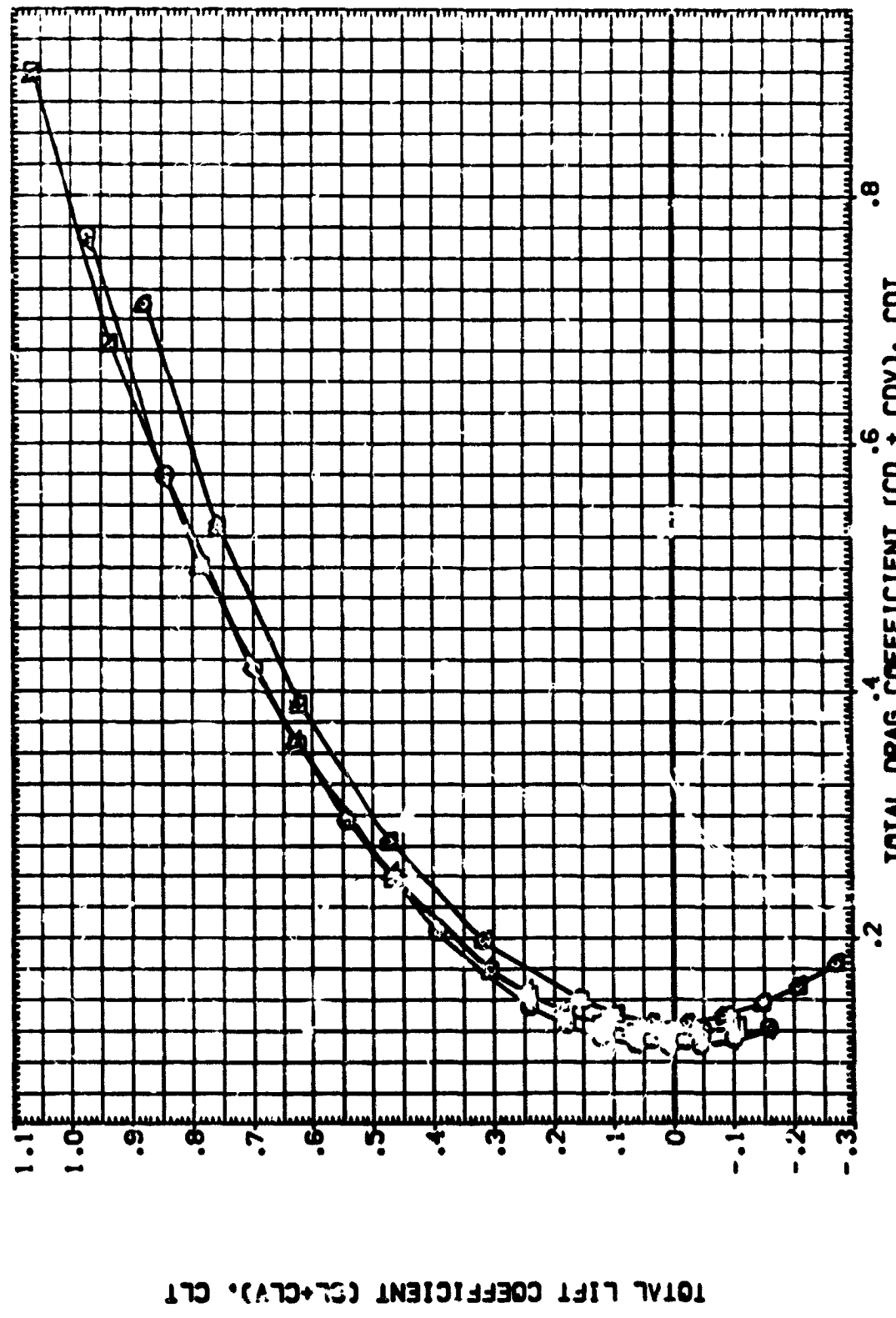


FIG. 4 LONGITUDINAL ELEVON EFFECTIVENESS

(A)MACH = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BDFLAP	SPOBRK	ELEVON	REFERENCE INFORMATION
(002101)	DA-203 LARC UPVT 1057 140 A/B C/B	.000	-11.700	54.970	.000	SREF 2050.0000 SQ.FT.
(002104)	DA-203 LARC UPVT 1057 140 A/B C/B	.000	-11.700	54.970	.000	LREF 1200.0000 INCHES
(002105)	DA-203 LARC UPVT 1057 140 A/B C/B	.000	-11.700	54.970	.000	BREF 900.0000 INCHES
(002107)	DA-203 LARC UPVT 1057 140 A/B C/B	.000	-11.700	54.970	.000	XMRP 10.5700 INCHES
(002110)	DA-203 LARC UPVT 1057 140 A/B C/B	.000	-11.700	54.970	.000	YMRP .0000 INCHES
(002106)	DA-203 LARC UPVT 1057 140 A/B C/B	.000	-11.700	54.970	.000	ZMRP 375.0000 INCHES
						SCALE .0150

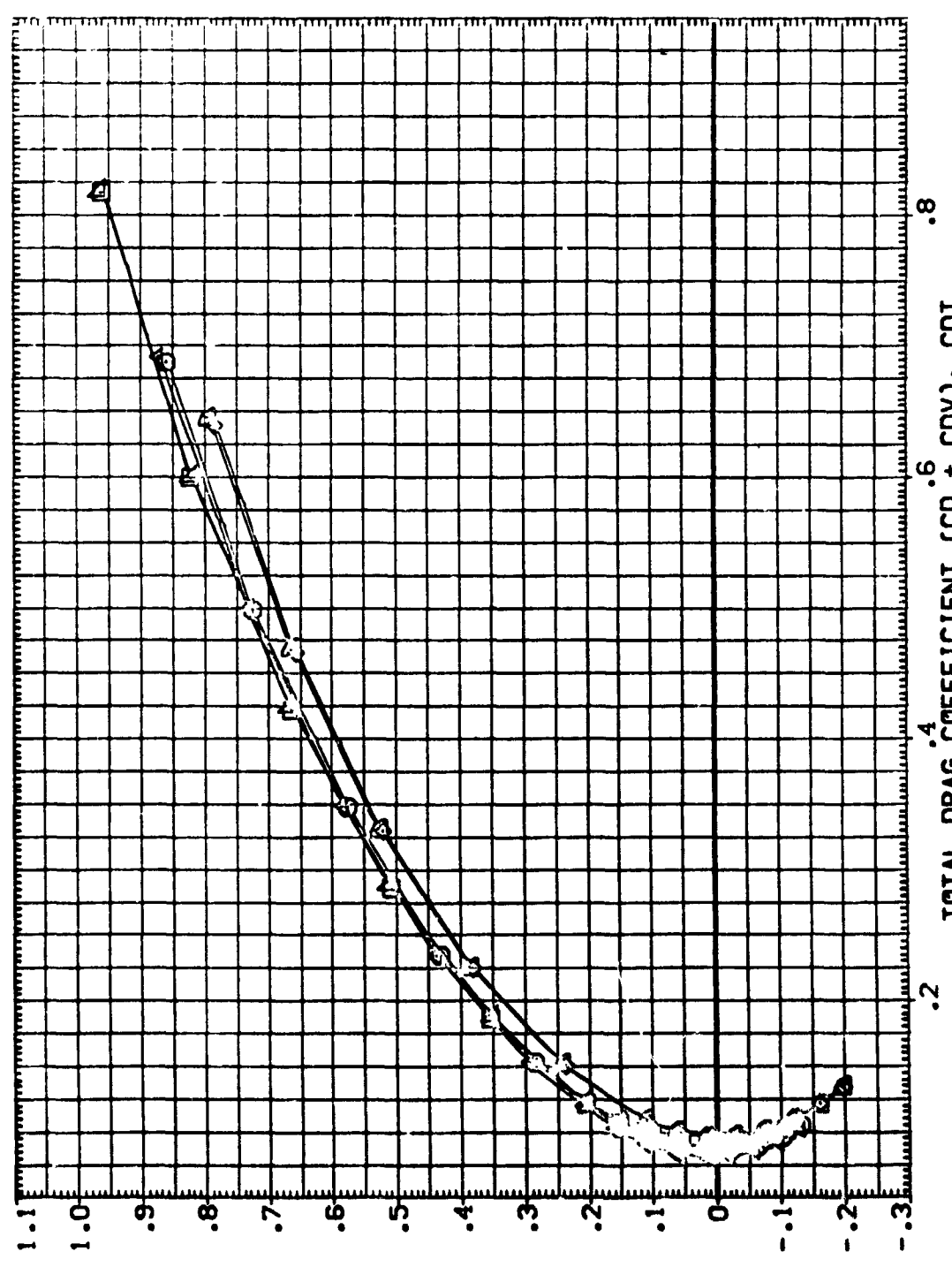


FIG. 4 LONGITUDINAL ELEVON EFFECTIVENESS
(B)MACH = 3.95



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BOFLAP	SPOBRK	ELEVON	REFERENCE INFORMATION
(G22101)	DA-203 LARC UPVT 1057 140 A/B 0/0	.000	-11.700	54.970	.000	SREF 2690.0000 SQ.FT.
(G22104)	DA-203 LARC UPVT 1057 140 A/B 0/0	.000	-11.700	54.970	.000	LREF 1200.0000 INCHES
(G22105)	DA-203 LARC UPVT 1057 140 A/B 0/0	.000	-11.700	54.970	.000	BREF 936.0000 INCHES
(G22107)	DA-203 LARC UPVT 1057 140 A/B 0/0	.000	-11.700	54.970	.000	XPREF 1076.7000 INCHES
(G22110)	DA-203 LARC UPVT 1057 140 A/B 0/0	.000	-11.700	54.970	.000	YMP 0.0000 INCHES
(G22106)	DA-203 LARC UPVT 1057 140 A/B 0/0	.000	-11.700	54.970	.000	ZMP 375.0000 INCHES
						SCALE .0150

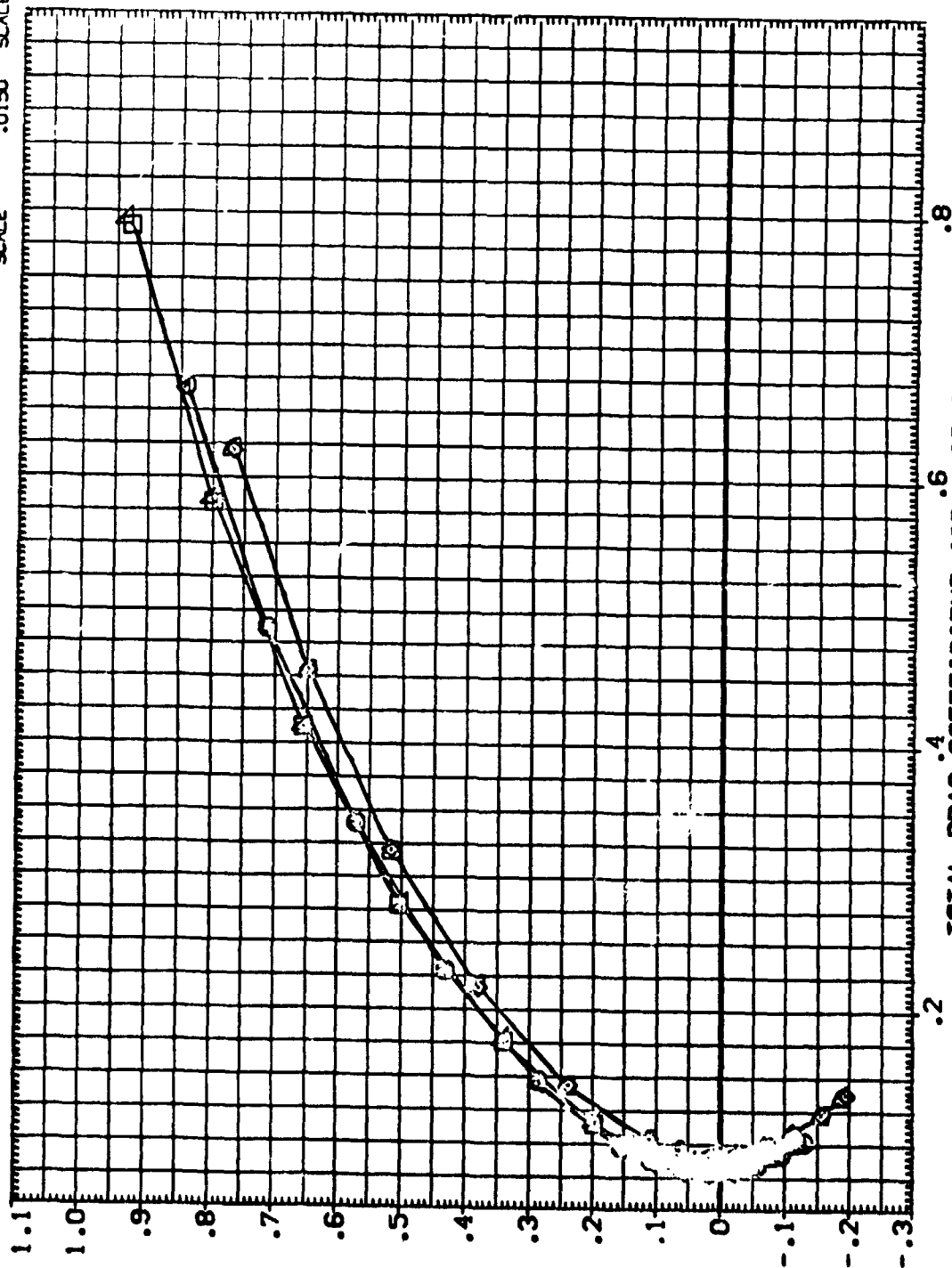


FIG. 4 LONGITUDINAL ELEVON EFFECTIVENESS

(C)MACH = 4.63

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BDF LAP	SPOBRK	ELEVON	REFERENCE INFORMATION
[G02101]	GA-203 LARC UPVT 1037 140 A/B DBB	.000	-11.700	54.920	.000	SREF 2630.0000 SQ.FT.
[G02104]	GA-203 LARC UPVT 1037 140 A/B DBB	.000	-16.300	54.920	15.000	LREF 1230.0000 INCHES
[G02105]	GA-203 LARC UPVT 1037 140 A/B DBB	.000	-11.700	54.920	-40.000	BREF 533.0000 INCHES
[G02107]	GA-203 LARC UPVT 1037 140 A/B DBB	.000	-11.700	54.920	.000	XPBP 1073.7000 INCHES
[G02110]	GA-203 LARC UPVT 1037 140 A/B DBB	.000	-16.300	54.920	15.000	YMRP 6.000 INCHES
[G02106]	GA-203 LARC UPVT 1037 140 A/B DBB	.000	-11.700	54.920	-40.000	ZMRP 375.0000 INCHES
						SCALE .0150

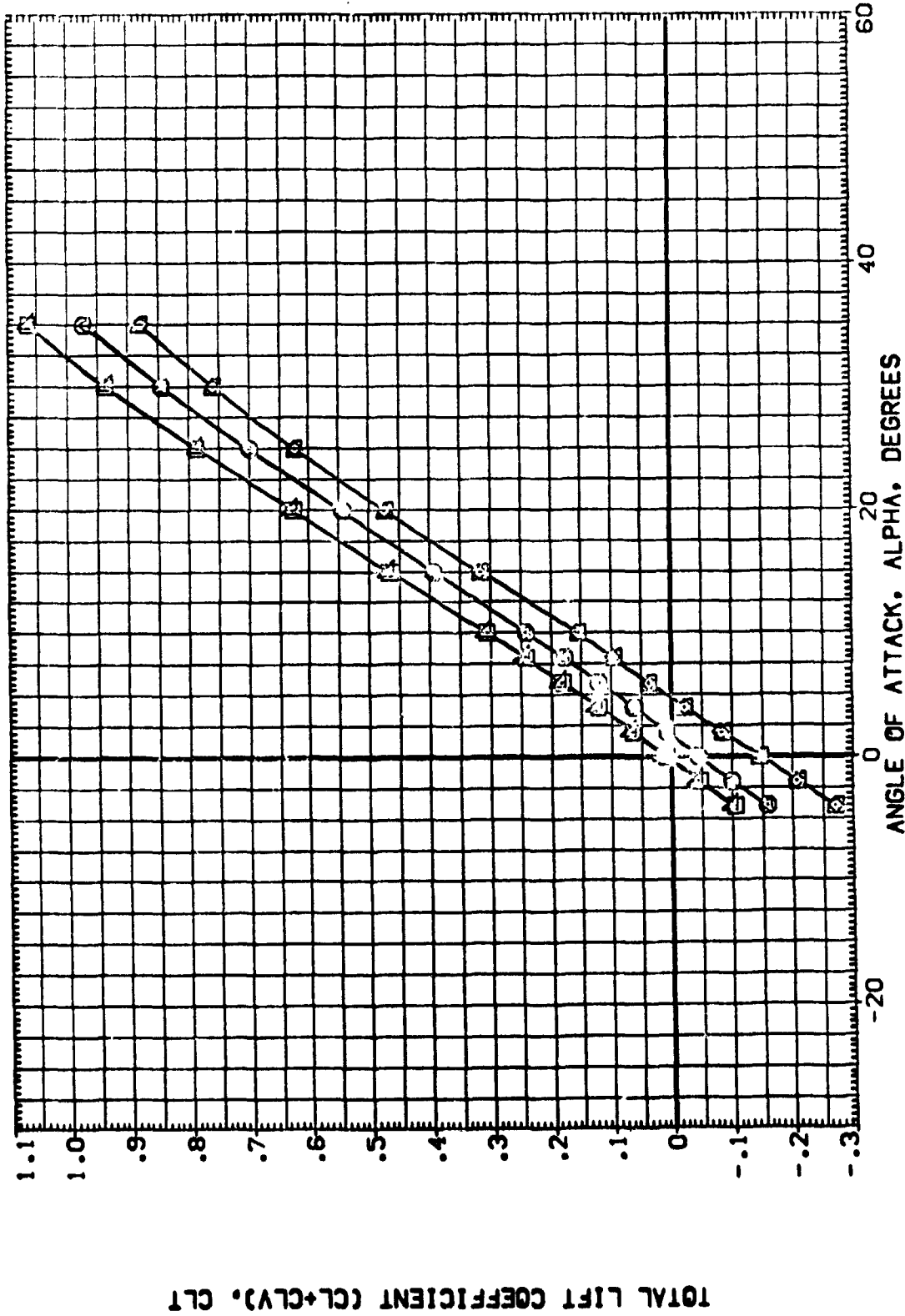


FIG. 4 LONGITUDINAL ELEVON EFFECTIVENESS

(M)MACH = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BOFLAP	SPOBRK	ELEVON	REFERENCE INFORMATION
(002101)	DA-203 LARC UPVT 1057 140 A/B DB3	.000	-11.700	54.920	.000	SREF 2690.0000 SQ.FT.
(002104)	DA-203 LARC UPVT 1057 140 A/B DB3	.000	-11.700	54.920	15.000	LREF 1293.3000 INCHES
(002105)	DA-203 LARC UPVT 1057 140 A/B DB3	.000	-11.700	54.920	-40.000	BREF 933.6000 INCHES
(002107)	DA-203 LARC UPVT 1057 140 A/B DB3	.000	-11.700	54.920	.000	XREF 1076.7000 INCHES
(002110)	DA-203 LARC UPVT 1057 140 A/B DB3	.000	-11.700	54.920	15.000	YREF .0000 INCHES
(002106)	DA-203 LARC UPVT 1057 140 A/B DB3	.000	-11.700	54.920	-40.000	ZREF 375.0000 INCHES
						SCALE .0150

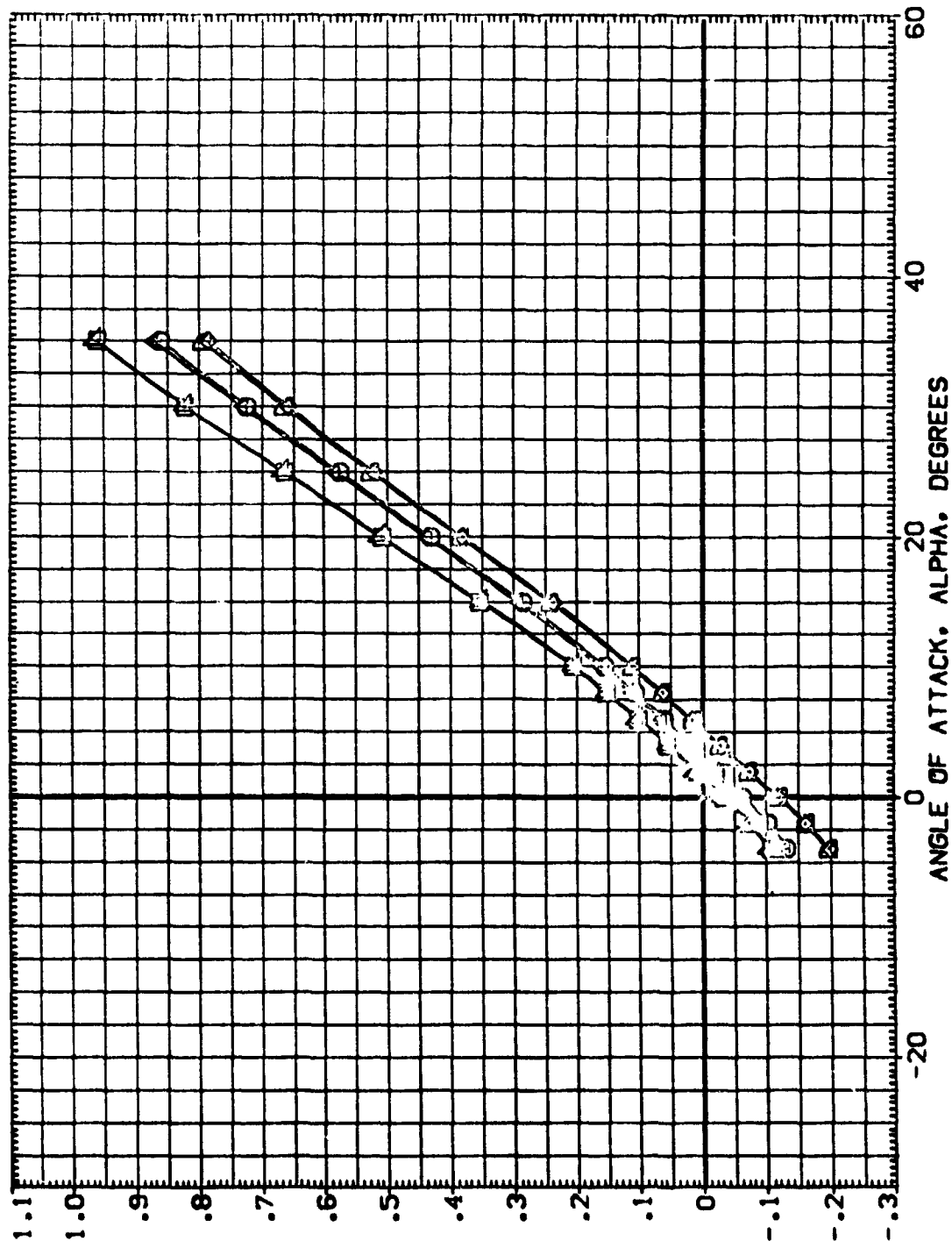


FIG. 4 LONGITUDINAL ELEVON EFFECTIVENESS

(B)MACH = 3.95

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BD FLAP	SPDRK	ELEVON	REFERENCE INFORMATION
(G02101)	GA-203 LARC UPAT 1057 140 A/B C/B	.000	-11.700	54.920	.000	2670.0000 SQ.FT.
(G02104)	GA-203 LARC UPAT 1057 140 A/B C/B	.000	-16.300	54.920	15.000	1230.0000 INCHES
(G02105)	GA-203 LARC UPAT 1057 140 A/B C/B	.000	-11.700	54.920	-40.000	975.0000 INCHES
(G02107)	GA-203 LARC UPAT 1057 140 A/B C/B	.000	-11.700	54.920	.000	1075.0000 INCHES
(G02110)	GA-203 LARC UPAT 1057 140 A/B C/B	.000	-16.300	54.920	15.000	375.0000 INCHES
(G02106)	GA-203 LARC UPAT 1057 140 A/B C/B	.000	-11.700	54.920	-40.000	SCALE

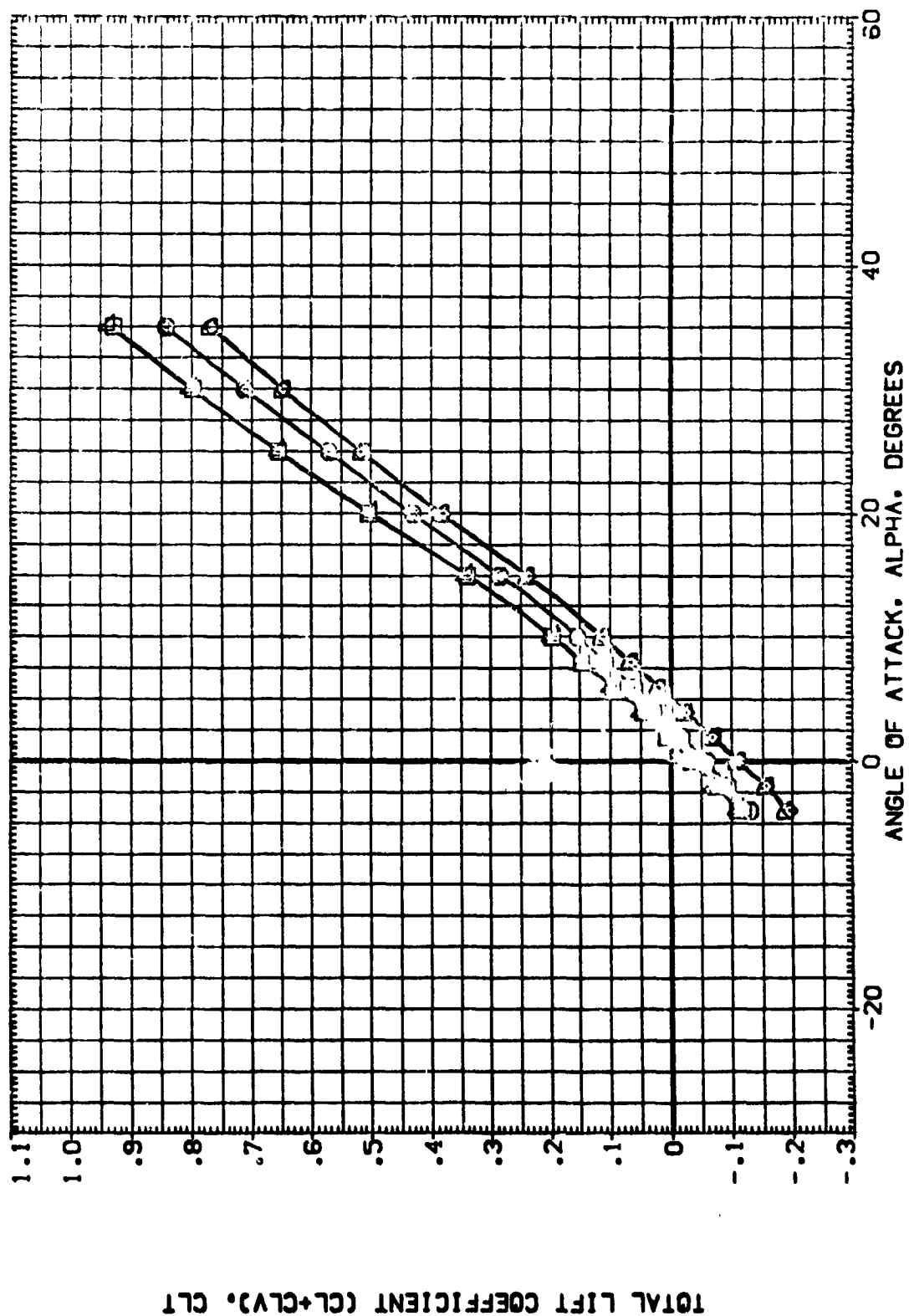


FIG. 4 LONGITUDINAL ELEVON EFFECTIVENESS

(C)MACH = 4.63

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BOFLAP	SPDRK	ELEVON	REFERENCE INFORMATION	SO. FT.
(002101)	0A-203 LARC UPVT 1057 140 A/B 038	.000	-11.700	54.520	.000	SREF	2690.0000
(002104)	0A-203 LARC UPVT 1057 140 A/B 038	.000	-11.700	54.520	15.000	LREF	1250.3200
(002105)	0A-203 LARC UPVT 1057 140 A/B 038	.000	-11.700	54.520	-40.000	BREF	925.0000
(002107)	0A-203 LARC UPVT 1057 140 A/B 038	.000	-11.700	54.520	.000	XMRP	1075.7000
(002110)	0A-203 LARC UPVT 1057 140 A/B 038	.000	-11.700	54.520	15.000	YMRP	.0000
(002106)	0A-203 LARC UPVT 1057 140 A/B 038	.000	-11.700	54.520	-40.000	ZMRP	375.0000
						SCALE	.0150

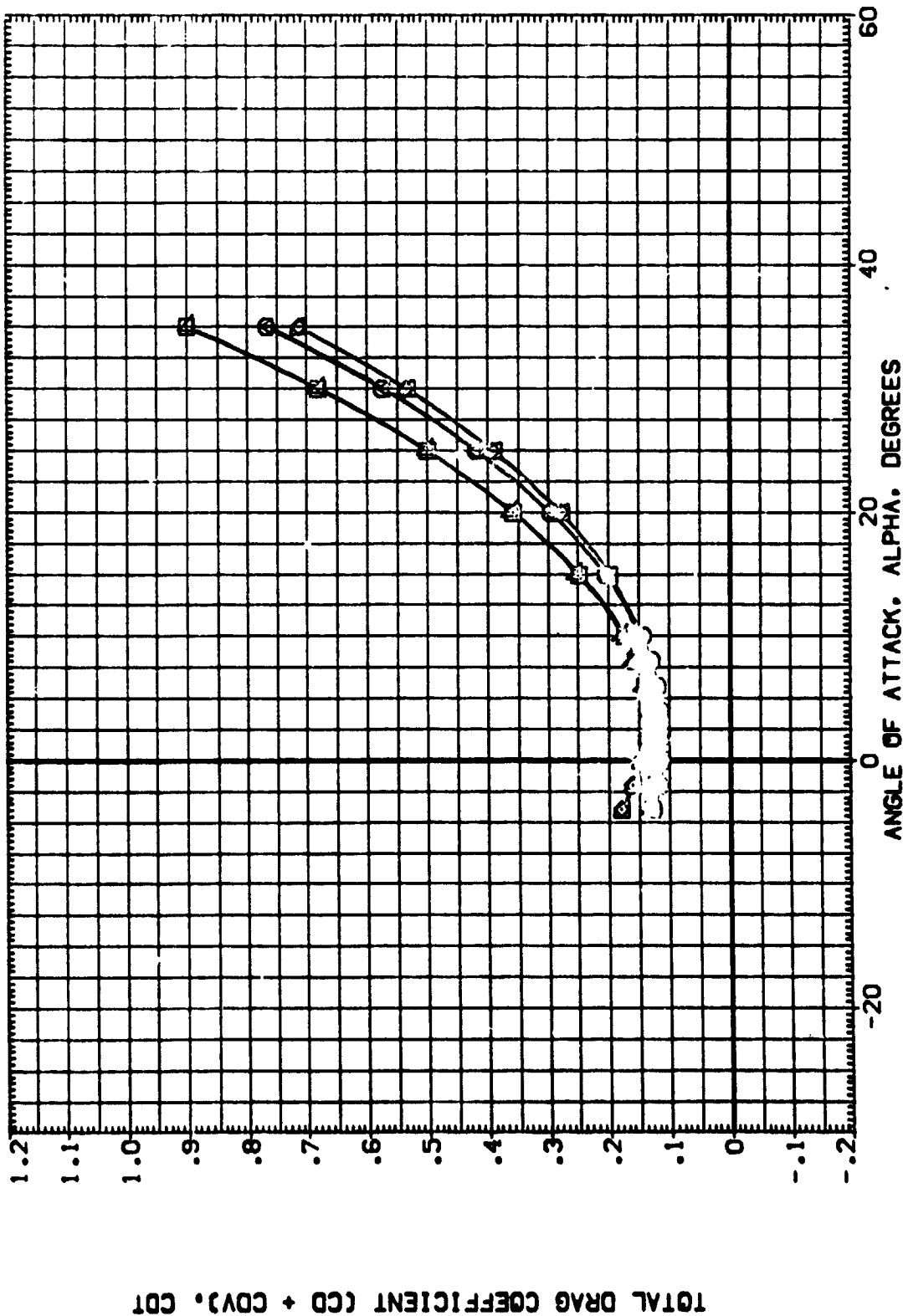


FIG. 4 LONGITUDINAL ELEVON EFFECTIVENESS

(MACH = 2.50)

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BOFLAP	SPOBRK	ELEVON	REFERENCE INFORMATION
(002101)	DA-203 LARC UPVT 1057 140 A/B C/B	.000	-11.700	54.920	.000	SREF 2650.0000 SO.FT.
(002104)	DA-203 LARC UPVT 1057 140 A/B C/B	.000	-16.300	54.920	15.000	LREF 1250.0000 INCHES
(002105)	DA-203 LARC UPVT 1057 140 A/B C/B	.000	-11.700	54.920	-40.000	BREF 906.0000 INCHES
(002107)	DA-203 LARC UPVT 1057 140 A/B C/B	.000	-11.700	54.920	.000	XMRP 1075.0000 INCHES
(002110)	DA-203 LARC UPVT 1057 140 A/B C/B	.000	-16.300	54.920	15.000	YMRP 375.0000 INCHES
(002106)	DA-203 LARC UPVT 1057 140 A/B C/B	.000	-11.700	54.920	-40.000	ZMRP 375.0000 INCHES
						SCALE .0150

TOTAL DRAG COEFFICIENT (CD + CDV), CD1

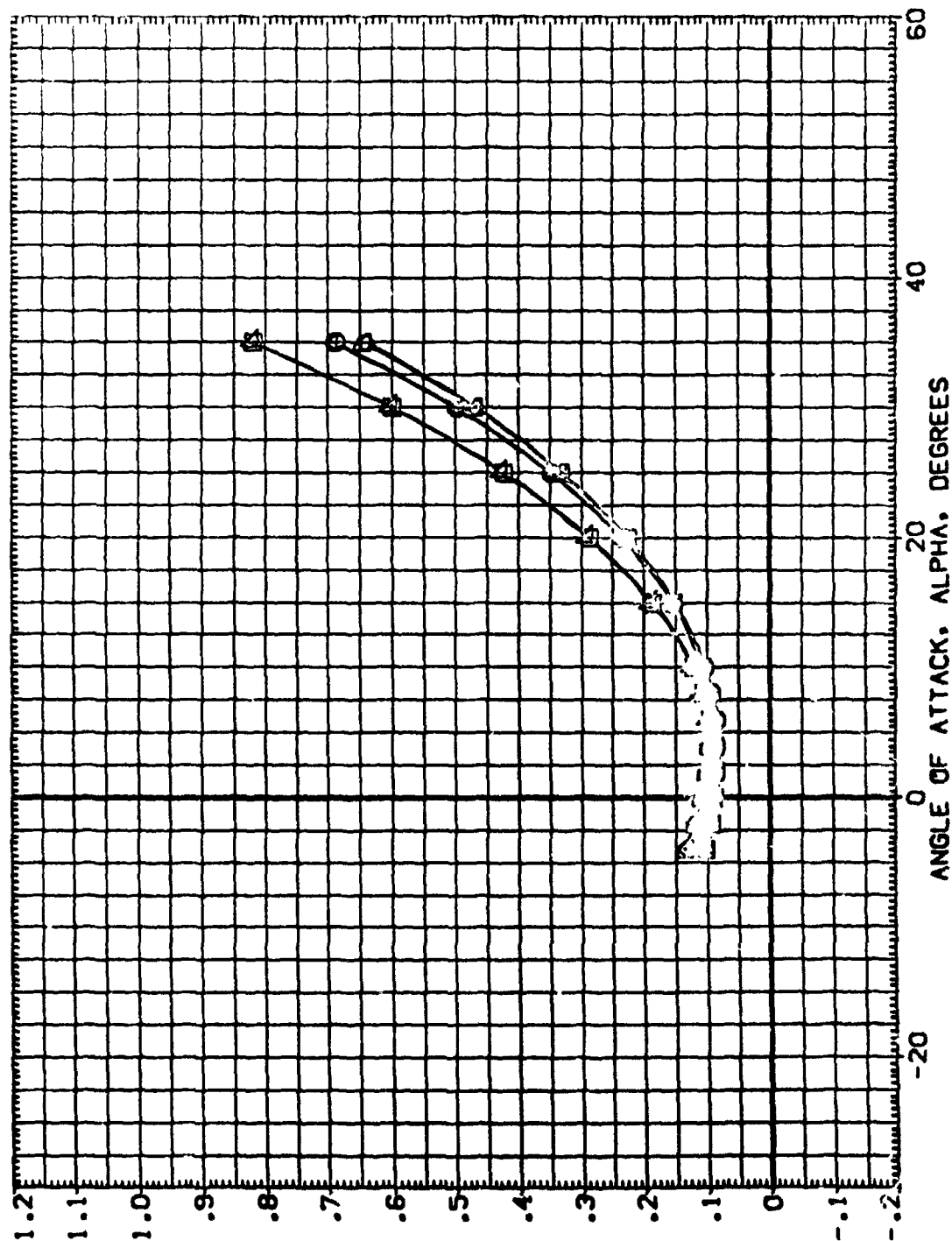


FIG. 4 LONGITUDINAL ELEVON EFFECTIVENESS

(B)MACH = 3.95



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BOFLAP	SPOBOK	ELEVON	REFERENCE INFORMATION
(002101)	0A-203 LARC UPVT 1057 140 A/B C/S +DUMMY STING	.000	-11.700	54.920	.000	SREF 2650.0000 SQ.FT.
(002104)	0A-203 LARC UPVT 1057 140 A/B C/S +DUMMY STING	.000	-16.300	54.920	15.000	LREF 1200.3000 INCHES
(002105)	0A-203 LARC UPVT 1057 140 A/B C/S +DUMMY STING	.000	-11.700	54.920	-40.000	BREF 936.6700 INCHES
(002107)	0A-203 LARC UPVT 1057 140 A/B C/S	.000	-11.700	54.920	.000	XMRP 1075.7000 INCHES
(002110)	0A-203 LARC UPVT 1057 140 A/B C/S	.000	-16.300	54.920	15.000	YMRP .0000 INCHES
(002106)	0A-203 LARC UPVT 1057 140 A/B C/S	.000	-11.700	54.920	-40.000	ZMRP 375.0000 INCHES
						SCALE .0150

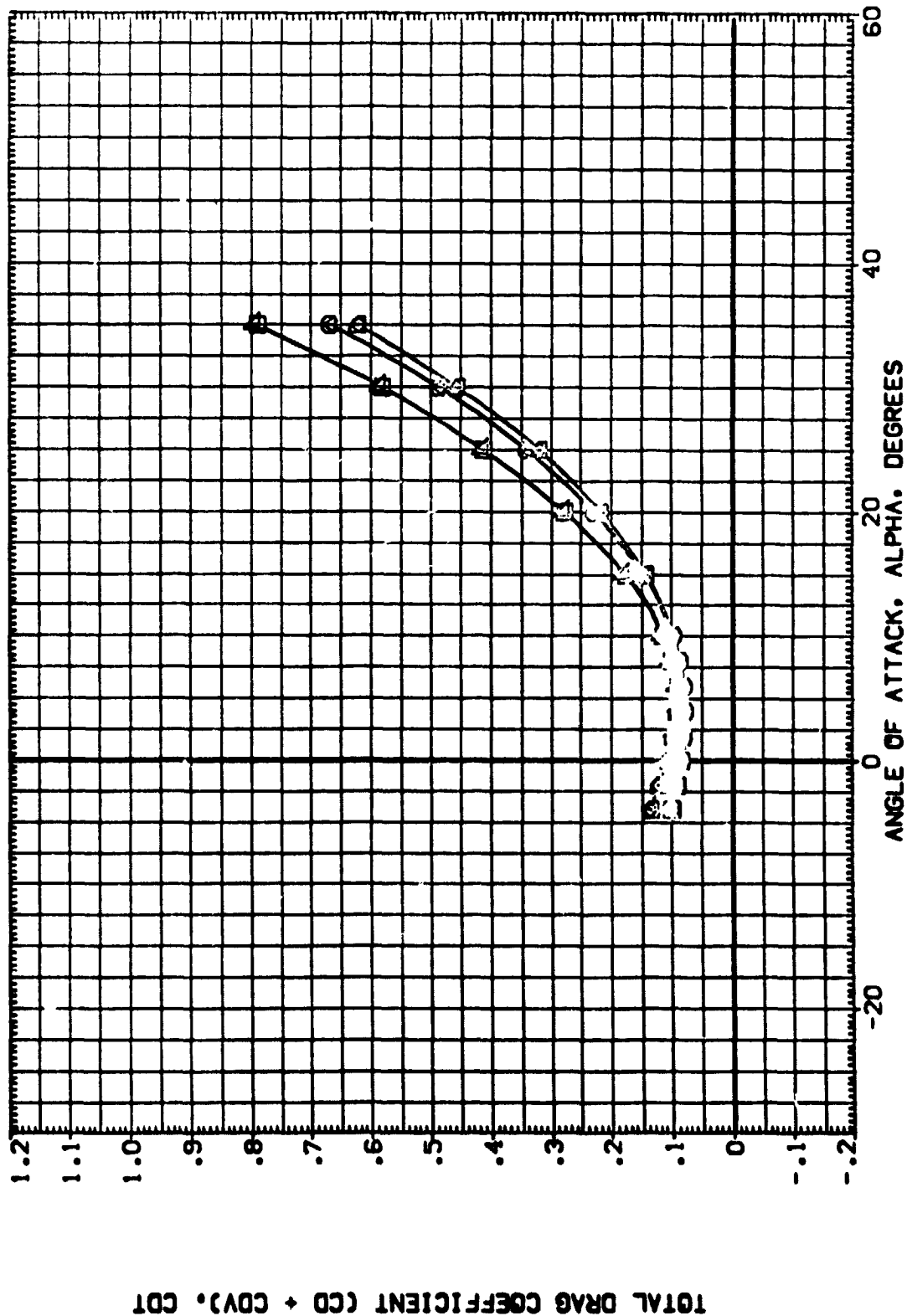


FIG. 4 LONGITUDINAL ELEVON EFFECTIVENESS

(CJMACH = 4.63

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BOFLAP	SPDRK	ELEVON	REFERENCE INFORMATION
(002101)	DA-208 LARC UPVT 1037 140 A/B 088 +DMMV STING	.000	-11.700	54.920	.000	SREF 2600.0000 53.17
(002104)	DA-203 LARC UPVT 1037 140 A/B 083 +DMMV STING	.000	-16.300	54.920	15.000	LREF 1200.0000 INCHES
(002105)	DA-203 LARC UPVT 1037 140 A/B 083 +DMMV STING	.000	-11.700	54.920	-40.000	BREF 925.0000 INCHES
(002107)	DA-203 LARC UPVT 1037 140 A/B 083	.000	-11.700	54.920	.000	YREF 1075.0000 INCHES
(002110)	DA-203 LARC UPVT 1037 140 A/S 083	.000	-16.300	54.920	15.000	YREF 375.0000 INCHES
(002106)	DA-203 LARC UPVT 1037 140 A/B 083	.000	-11.700	54.920	-40.000	ZREF .0150 SCALE

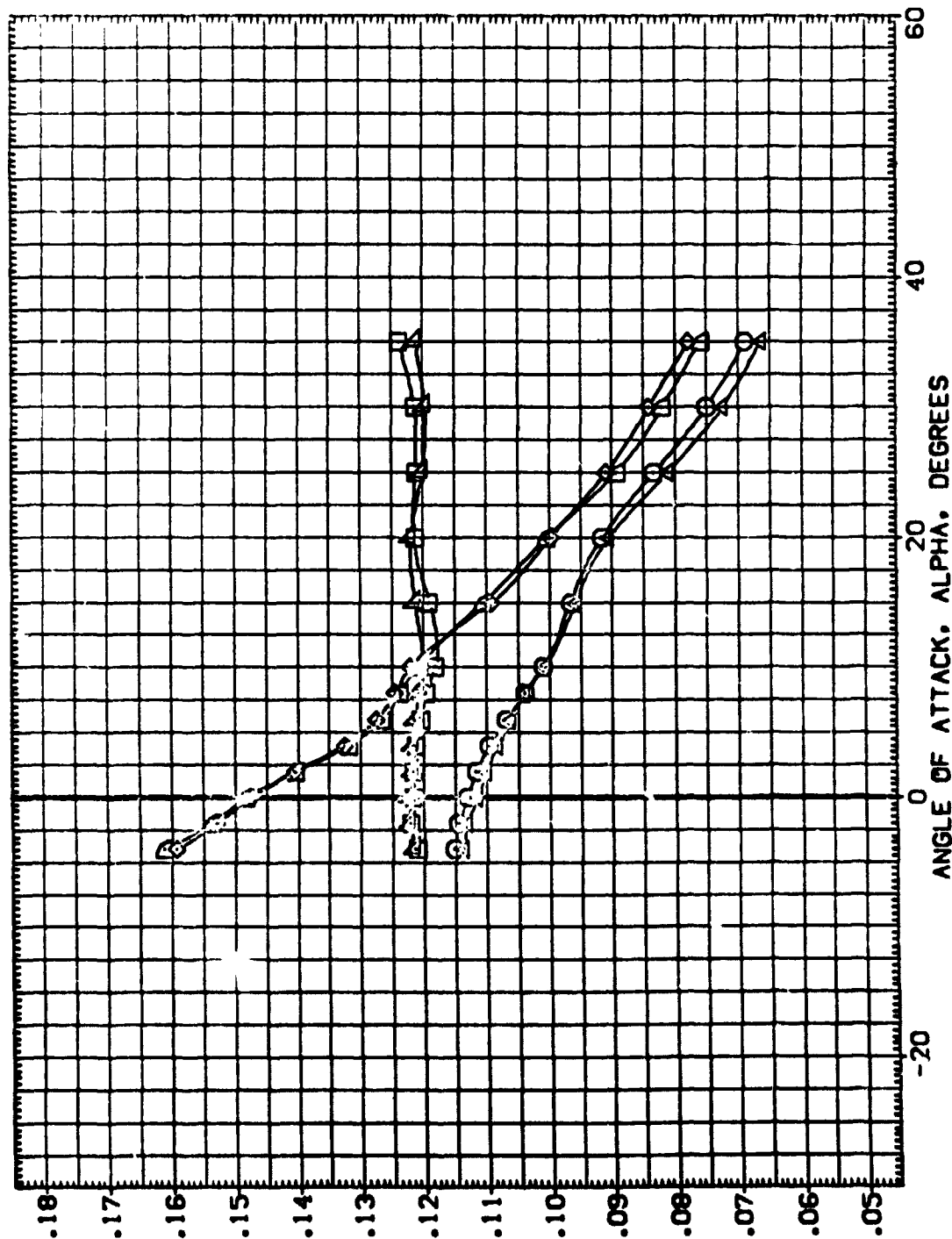


FIG. 4 LONGITUDINAL ELEVON EFFECTIVENESS

(A)MACH = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BDFLAP	SPOBRK	ELEVON	REFERENCE INFORMATION	SO. FT.
(022101)	DA-203 LARC UPVT 1037 140 A/B DBB	.000	-11.700	54.920	.000	SREF	2690.0000
(022104)	DA-203 LARC UPVT 1037 140 A/B DBB	.000	-16.300	54.920	15.000	LREF	1200.0000
(022105)	DA-203 LARC UPVT 1037 140 A/B DBB	.000	-11.700	54.920	-40.000	BREF	800.0000
(022107)	DA-203 LARC UPVT 1037 140 A/B DBB	.000	-11.700	54.920	.000	XMRP	1075.0000
(022110)	DA-203 LARC UPVT 1037 140 A/B DBB	.000	-16.300	54.920	15.000	YMRP	.0000
(022106)	DA-203 LARC UPVT 1037 140 A/B DBB	.000	-11.700	54.920	-40.000	ZMRP	375.0000
						SCALE	.0150

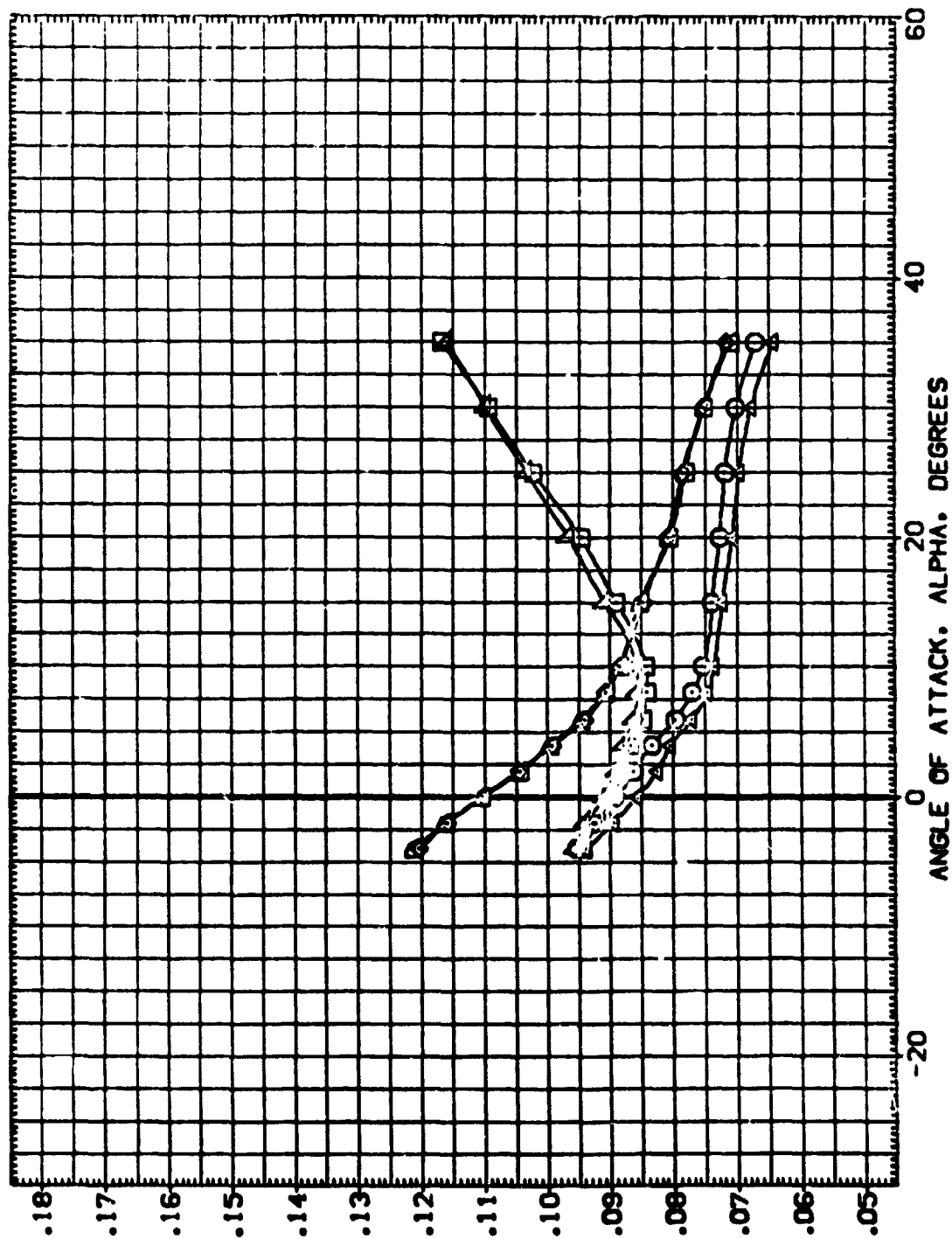


FIG. 4 LONGITUDINAL ELEVON EFFECTIVENESS

(B)MACH = 3.95

TOTAL AXIAL-FORCE COEFFICIENT (CA + CAV), CAT

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BD FLAP	SPRINK	ELEVON	REFERENCE INFORMATION
(002101)	0A-208 LARC UPVT 1057 140 A/B 0/0	.000	-11.700	54.920	.000	SREF 2530.0000 SQ.FT.
(002104)	0A-208 LARC UPVT 1057 140 A/B 0/0	.000	-16.300	54.920	15.000	LREF 1250.0000 INCH-ES
(002105)	0A-208 LARC UPVT 1057 140 A/B 0/0	.000	-11.700	54.920	-40.000	BREF 955.0000 INCH-ES
(002107)	0A-208 LARC UPVT 1057 140 A/B 0/0	.000	-11.700	54.920	15.000	YREF 1076.0000 INCH-ES
(002110)	0A-208 LARC UPVT 1057 140 A/B 0/0	.000	-16.300	54.920	15.000	ZREF 375.0000 INCH-ES
(002106)	0A-208 LARC UPVT 1057 140 A/B 0/0	.000	-11.700	54.920	-40.000	SCALE .0150 SCALE

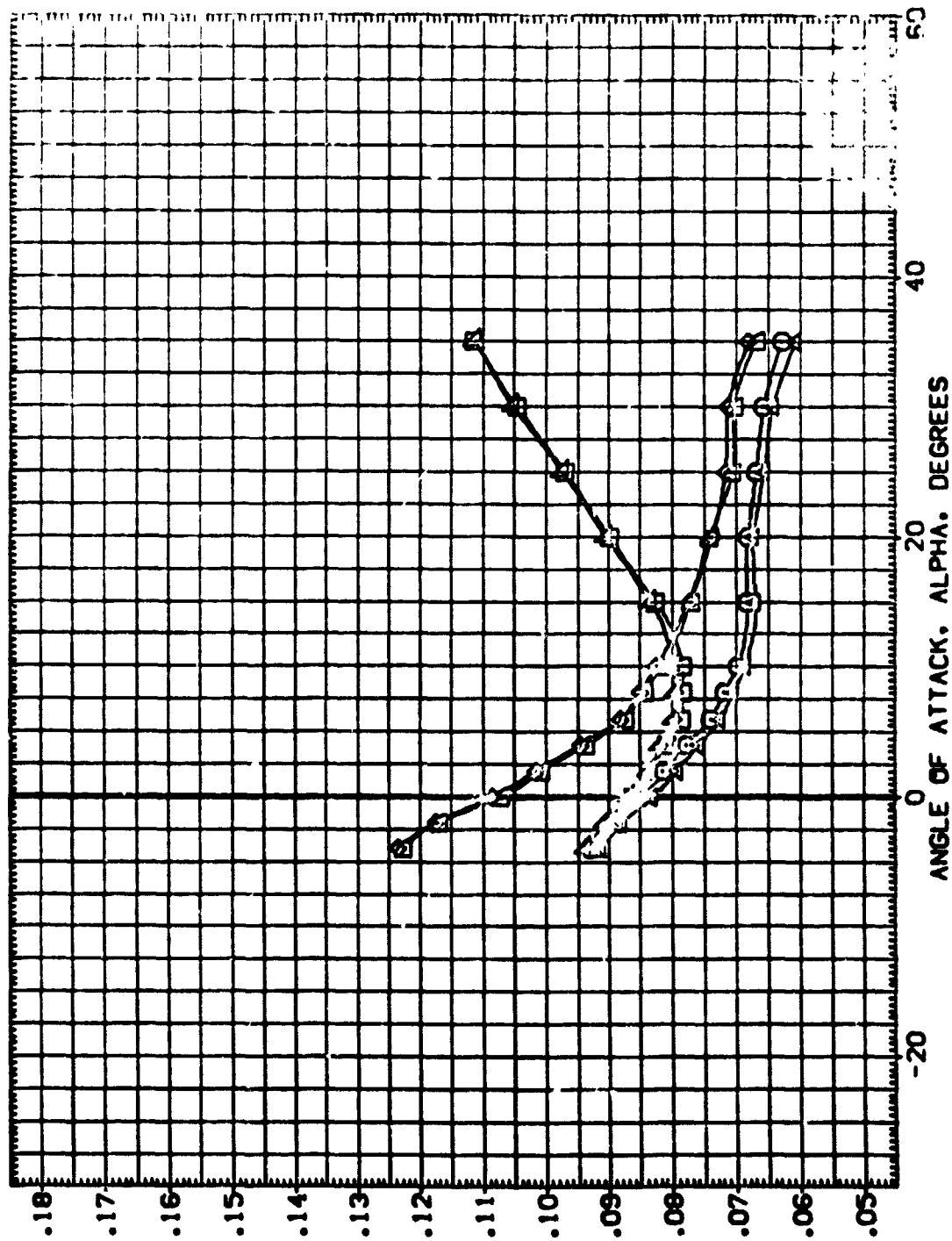


FIG. 4 LONGITUDINAL ELEVON EFFECTIVENESS

(C)MACH = 4.63

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BOFLAP	SPORBK	ELEVON	REFERENCE INFORMATION
(E02101)	BA-208 LARC UPVT 1057 140 A/B DBB	.000	-11.700	54.920	.000	SREF 2620.0000 SQ.FT.
(E02103)	BA-208 LARC UPVT 1057 140 A/B DBB	.000	-16.300	54.920	.000	LREF 1250.3500 INCHES
(E02107)	BA-208 LARC UPVT 1057 140 A/B DBB	.000	-11.700	54.920	.000	BREF 905.0000 INCHES
(E02109)	BA-208 LARC UPVT 1057 140 A/B DBB	.000	-16.300	54.920	.000	YREF 1075.7500 INCHES
						YREF 0.0000 INCHES
						ZREF 375.0000 INCHES
						SCALE .0150

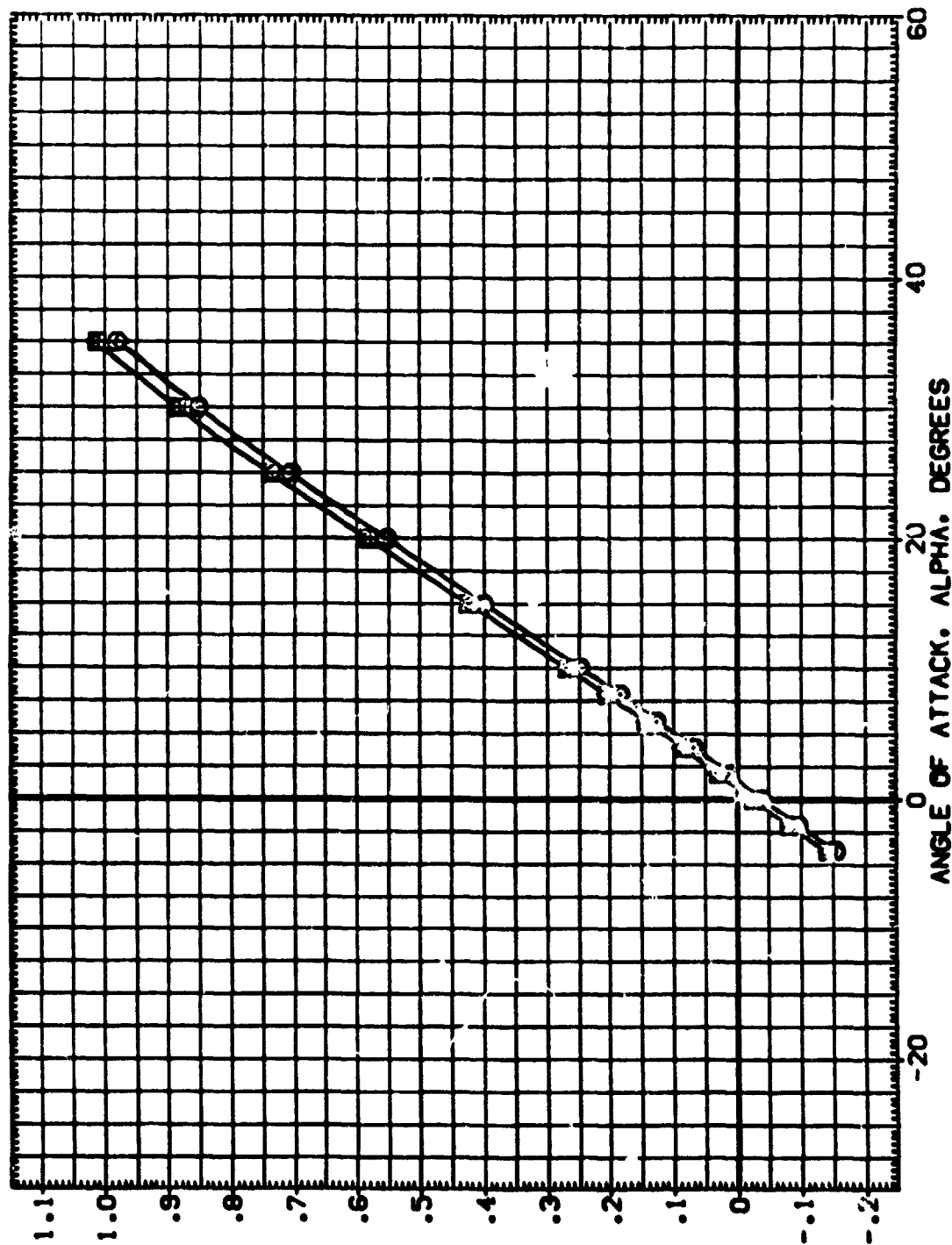


FIG.5 BODY FLAP EFFECTIVENESS

(A)MACH = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BD FLAP	SPOBRK	ELEVON	REFERENCE INFORMATION
(E02101)	0A-203 LARC UPVT 1097 140 A/B 588	.000	-11.700	54.520	.000	SREF 2000.0000
(E02103)	0A-203 LARC UPVT 1097 140 A/B 588	.000	-16.300	54.520	.000	LREF 1200.0000
(E02107)	0A-203 LARC UPVT 1097 140 A/B 588	.000	-11.700	54.520	.000	XREF 1070.7000
(E02109)	0A-203 LARC UPVT 1097 140 A/B 588	.000	-16.300	54.520	.000	YREF 375.0000
						ZREF .1150
						SCALE
						SO. FT.
						INCHES
						INCHES
						INCHES
						INCHES
						INCHES

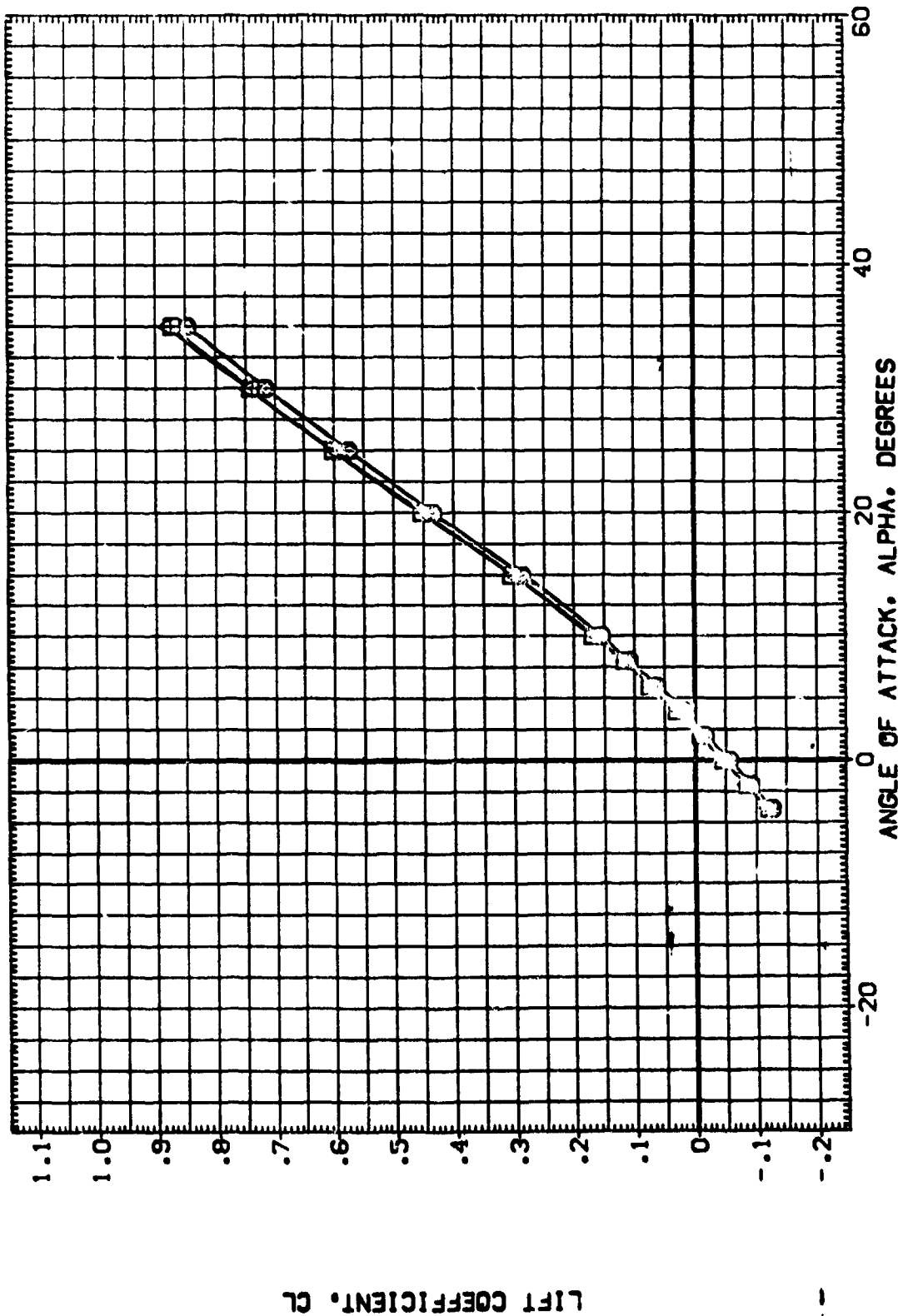


FIG.5 BODY FLAP EFFECTIVENESS

(C)MACH = 4.63

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BDFLAP	SPOBRK	ELEVON	REFERENCE INFORMATION
(E02101)	BA-208 LARC UPVT 1097 140 A/B CR8 +DUMMY STING	.000	-11.700	54.920	.000	SREF 2650.0000 50.000 INCHES
(E02103)	BA-208 LARC UPVT 1097 140 A/B CR8 +DUMMY STING	.000	-16.300	54.920	.000	LREF 1290.0000 10.000 INCHES
(E02107)	BA-208 LARC UPVT 1097 140 A/B CR8	.000	-11.700	54.920	.000	BREF 935.6000 10.000 INCHES
(E02109)	BA-208 LARC UPVT 1097 140 A/B CR8	.000	-16.300	54.920	.000	XMRP 1075.7000 10.000 INCHES
						YMRP 375.0000 10.000 INCHES
						SCALE .0150

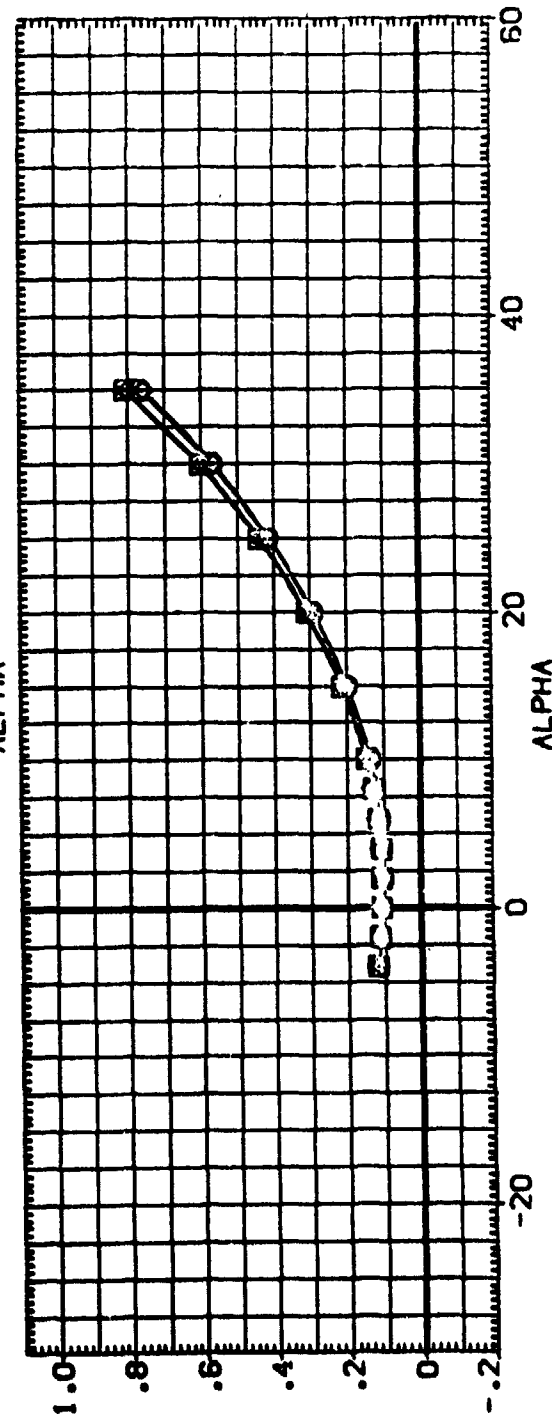
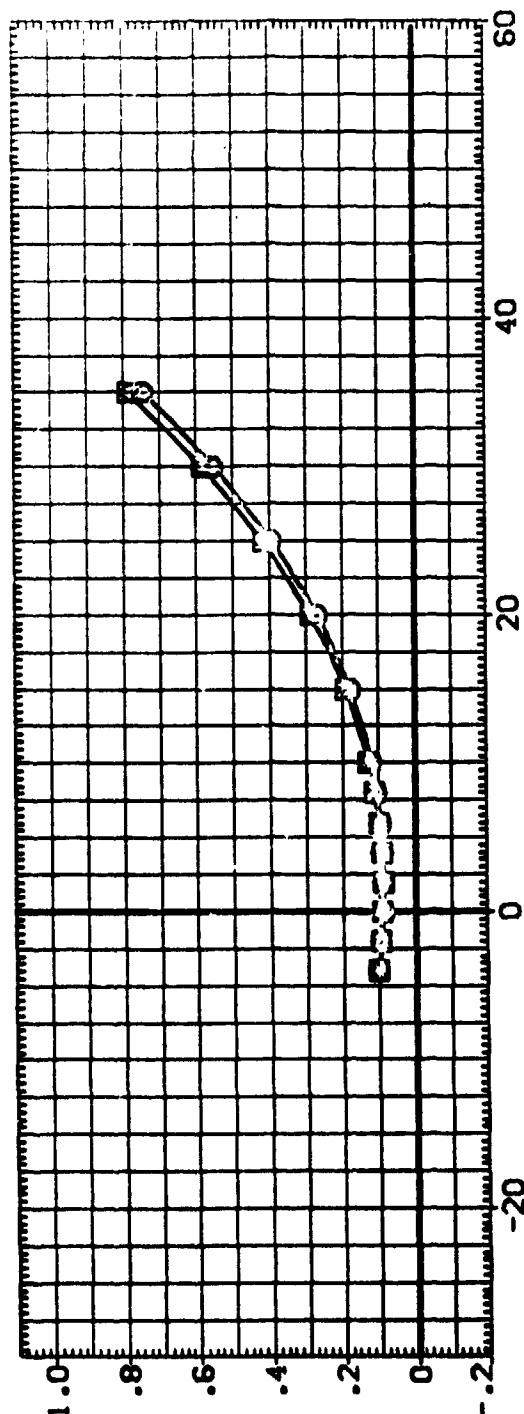


FIG. 16.5 BODY FLAP EFFECTIVENESS

(A)MACH = 2.50



40048

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BOFLAP	SPOBRK	ELEVON	REFERENCE INFORMATION
(E02101)	0A-208 LARC UPVT 1057 140 A/B 0/8	.000	-11.700	54.920	.000	SREF 2690.0000 SQ.FT.
(E02103)	0A-208 LARC UPVT 1057 140 A/B 0/8	.000	-16.300	54.920	.000	LREF 1280.3000 INCHES
(E02107)	0A-208 LARC UPVT 1057 140 A/B 0/8	.000	-11.700	54.920	.000	BREF 936.6900 INCHES
(E02109)	0A-208 LARC UPVT 1057 140 A/B 0/8	.000	16.300	54.920	.000	XPRP 1076.7000 INCHES
						YPRP .0000 INCHES
						ZPRP 375.0000 INCHES
						SCALE .0150 SCALE

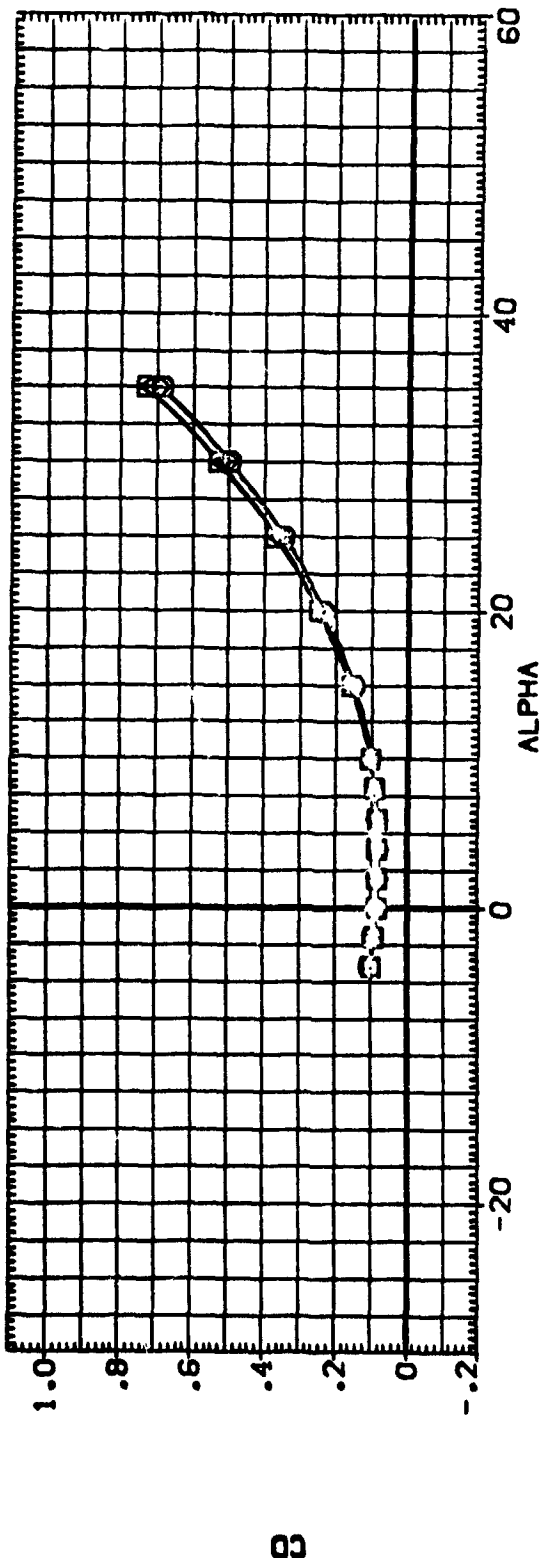
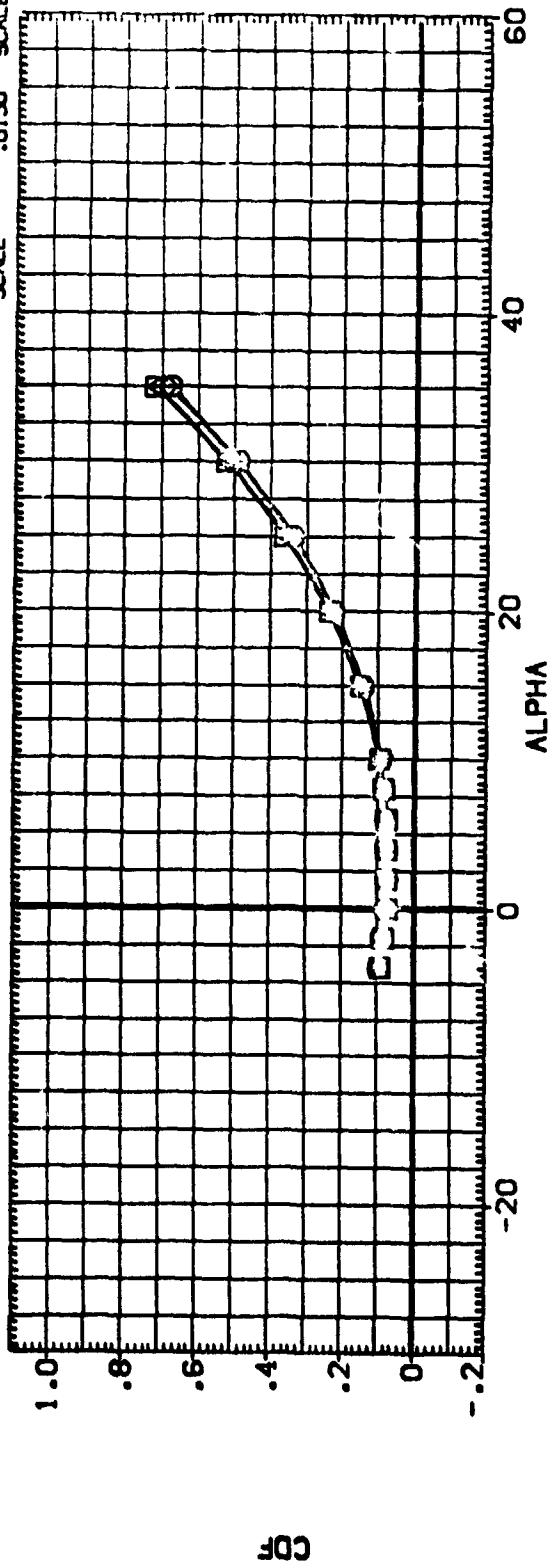


FIG.5 BODY FLAP EFFECTIVENESS

(B)MACH = 3.95

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BDFLAP	SPDRX	ELEVON	REFERENCE INFORMATION
(E02101)	GA-203 LARC CVT 107 140 A/B 038 +CLIPPY STING	.000	-11.700	54.920	.000	SREF 2690.0000 SQ.FT.
(E02102)	GA-203 LARC UPVT 107 140 A/B 038 +CLIPPY STING	.000	-16.300	54.920	.000	LREF 1290.3000 INCHES
(E02103)	GA-203 LARC UPVT 107 140 A/B 038	.000	-11.700	54.920	.000	BREF 928.0000 INCHES
(E02104)	GA-203 LARC UPVT 107 140 A/B 038	.000	16.300	54.920	.000	XMRP 1078.7000 INCHES
						ZMRP .0000 INCHES
						SCALE 375.0000 INCHES
						SCALE .0150

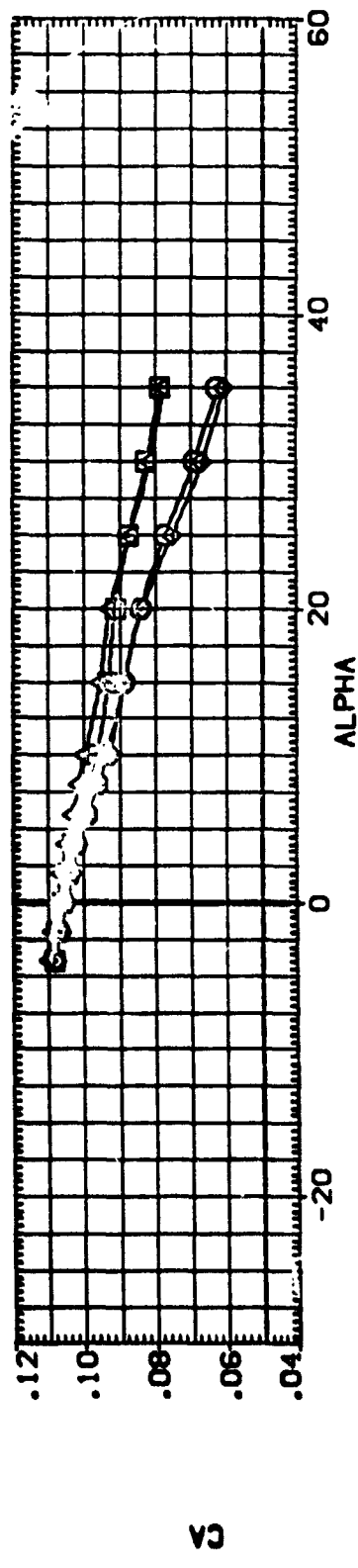
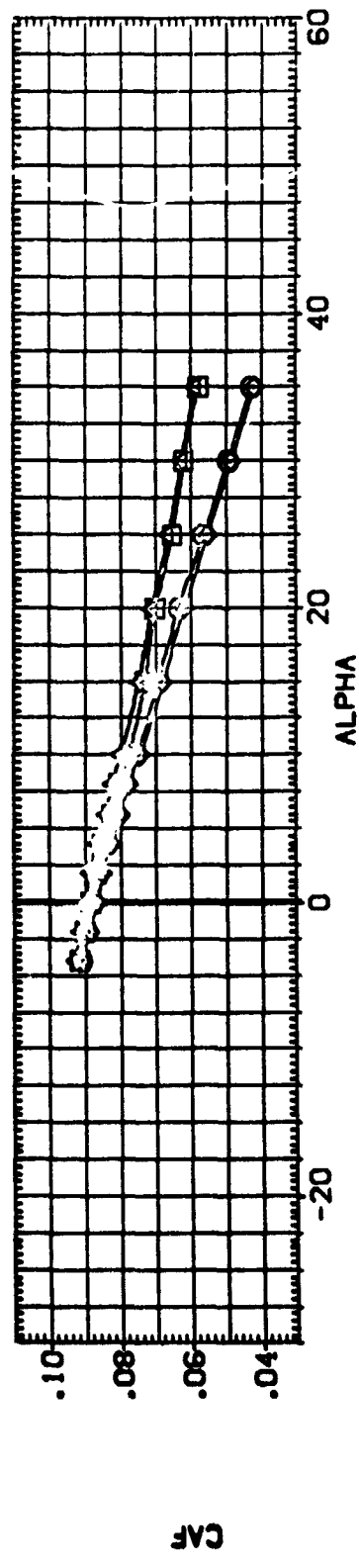
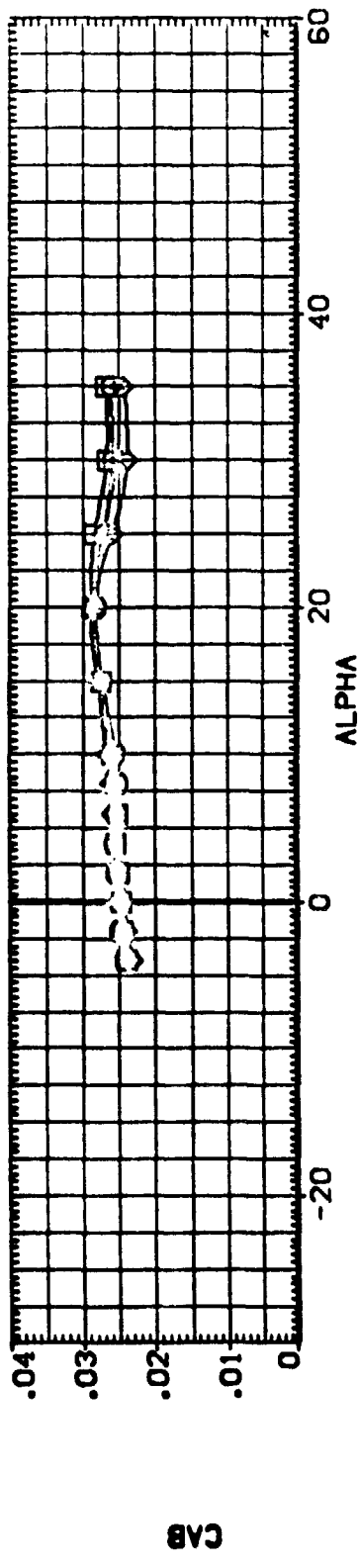


FIG.5 BODY FLAP EFFECTIVENESS
 (A)MACH = 2.50

DATA SET SYMBOL CONF IDURATION DESCRIPTION
 (E02101) } OA-203 LARC UPVT 1057 140 A/B 058 +QUARTY STING
 (E02103) } OA-203 LARC UPVT 1057 140 A/B 058 +QUARTY STING
 (E02107) } OA-203 LARC UPVT 1057 140 A/B 058
 (E02108) } OA-203 LARC UPVT 1057 140 A/B 058

BEYA	BOFLAP	SPDWRK	ELEVON	REFERENCE INFORMATION
.000	-11.700	54.920	.000	SREF 2650.0000 50. FT.
.000	-16.300	54.920	.000	LREF 1250.0000 INCHES
.000	-11.700	54.920	.000	BREF 935.0000 INCHES
.000	-16.300	54.920	.000	XMRP 1076.7000 INCHES
				YMRP .0000 INCHES
				ZMRP 375.0000 INCHES
				SCALE .0150

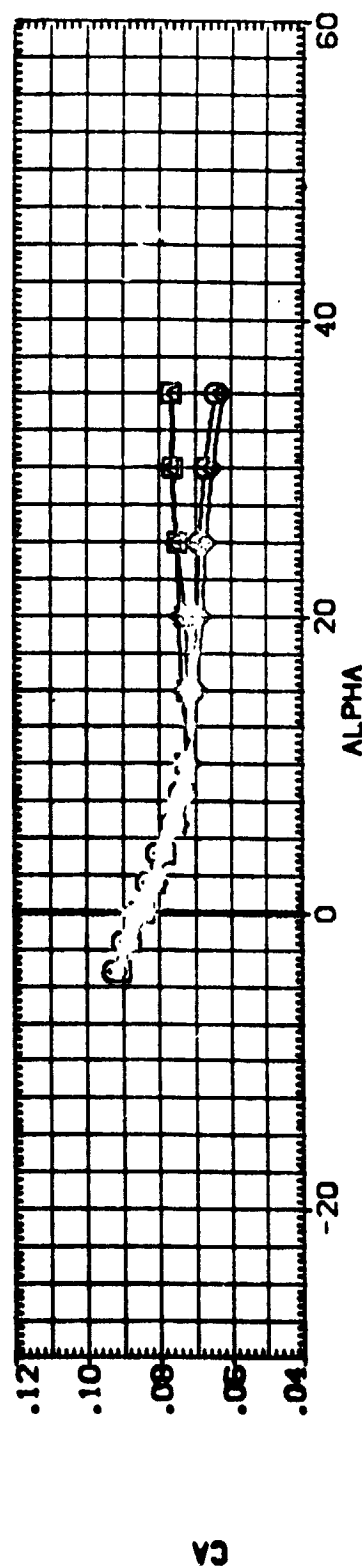
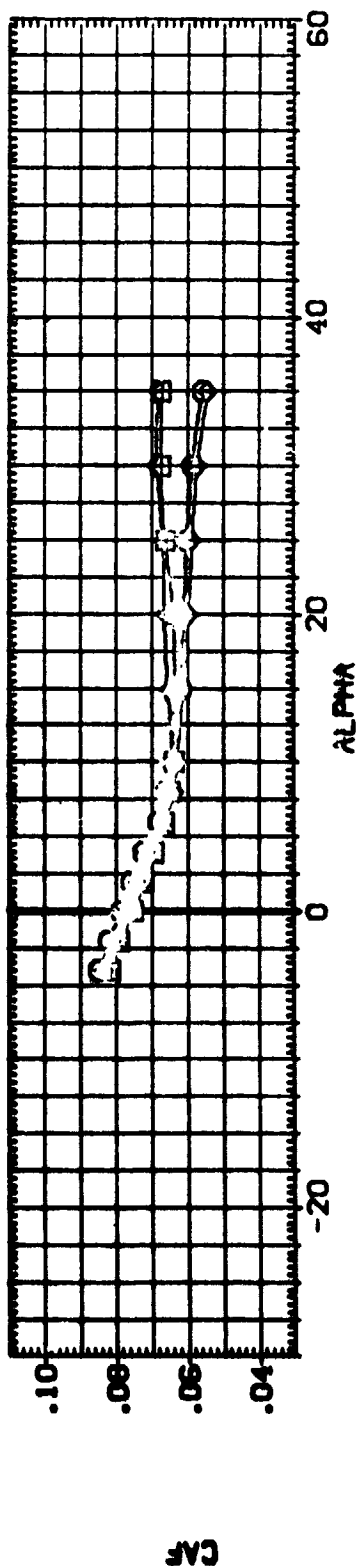
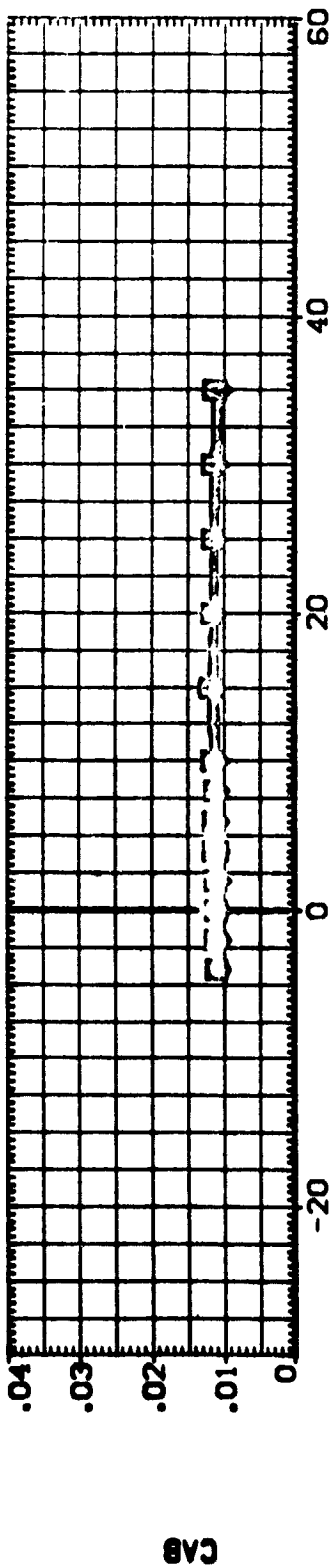


FIG.5 BODY FLAP EFFECTIVENESS

(8)MACH = 3.95

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BOFLAP	SPDRBK	ELEVON	REFERENCE INFORMATION
(E02101)	0A-203 LARC UPVT 1057 140 A/B 028	.000	-11.700	54.920	.000	SREF 2690.0000 SQ.FT.
(E02103)	0A-203 LARC UPVT 1057 140 A/B 028	.000	-16.300	54.920	.000	LREF 1290.0000 INCHES
(E02107)	0A-203 LARC UPVT 1057 140 A/B 028	.000	-11.700	54.920	.000	BREF 903.0000 INCHES
(E02109)	0A-203 LARC UPVT 1057 140 A/B 028	.000	-16.300	54.920	.000	XMRP 1076.7000 INCHES
						YMRP .0000 INCHES
						ZMRP 375.0000 INCHES
						SCALE .0150

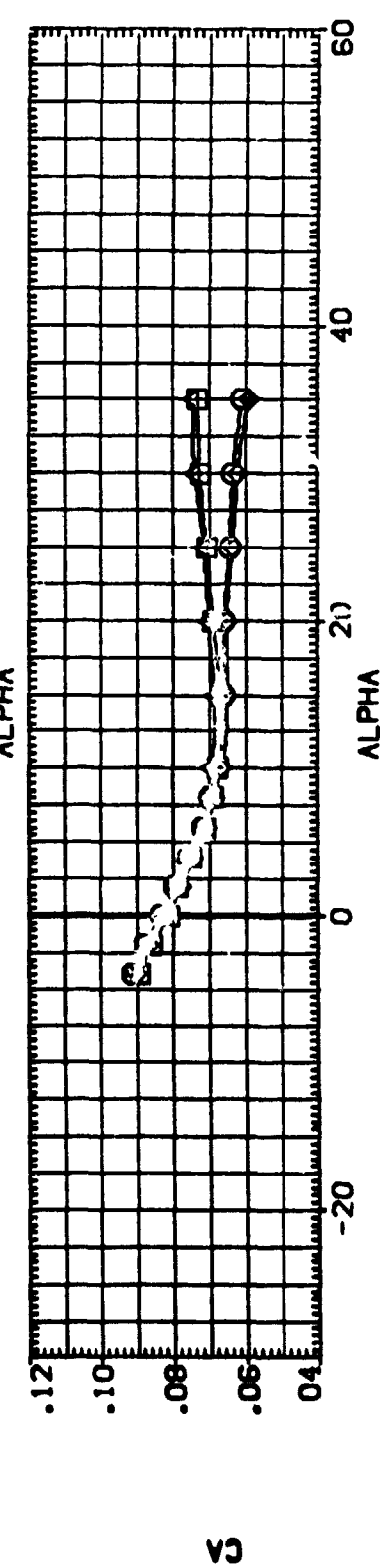
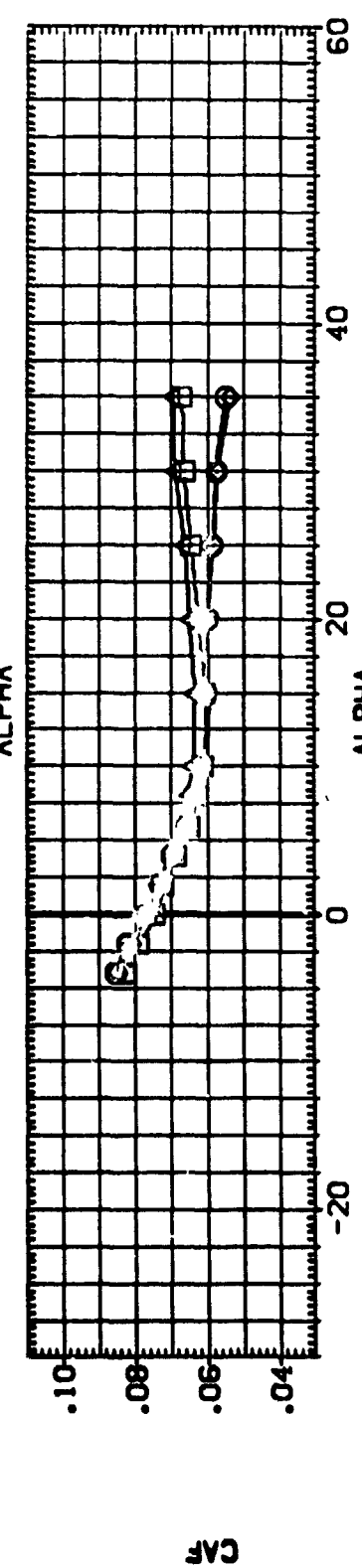
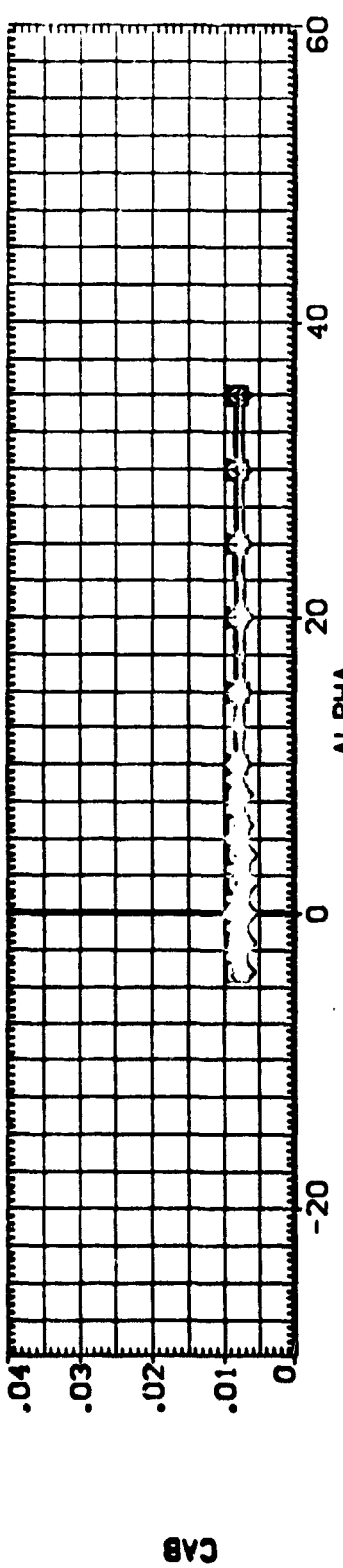


FIG.5 BODY FLAP EFFECTIVENESS

(C)MACH = 4.63

DATA SET SYMBOL: REF INFORMATION DESCRIPTION

DATA SET SYMBOL	REF INFORMATION	DESCRIPTION
(E02101)	DA-208 LARC UPVT 1037 140 A/B 008	UPVT 1037 140 A/B 008
(E02102)	DA-208 LARC UPVT 1037 140 A/B 008	UPVT 1037 140 A/B 008
(E02103)	DA-208 LARC UPVT 1037 140 A/B 008	UPVT 1037 140 A/B 008
(E02104)	DA-208 LARC UPVT 1037 140 A/B 008	UPVT 1037 140 A/B 008

BETA: .000
 ELEVATION: .000
 SPDRK: 54.920
 SDFLAP: -11.700
 REFERENCE INFORMATION:
 SREF: 2650.0000 50.000
 LREF: 1250.0000 100.000
 BREF: 936.9200 100.000
 XREF: 1076.7000 100.000
 YREF: .0000 100.000
 ZREF: 375.0000 100.000
 SCALE: .0150 INCHES

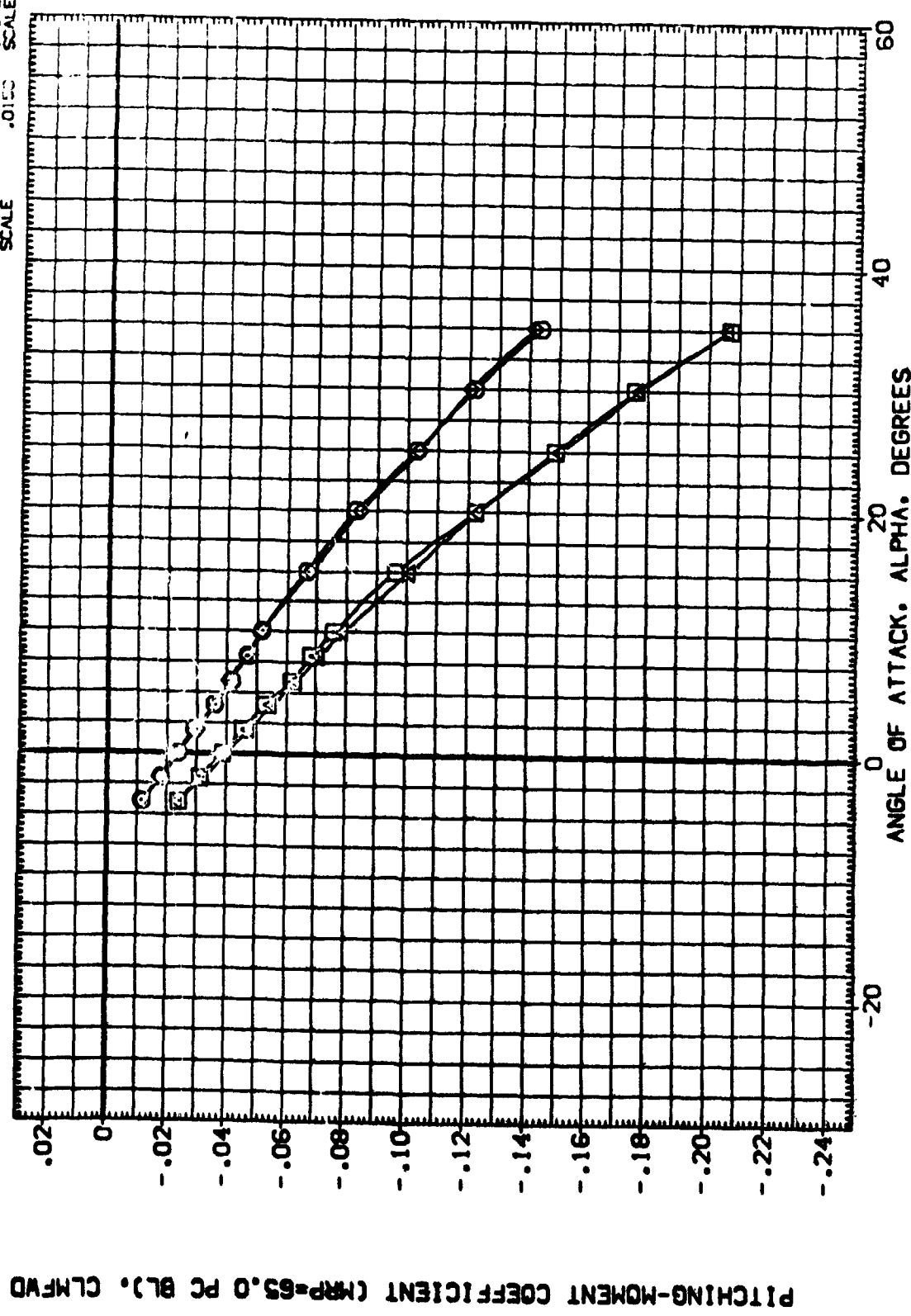


FIG. 16.5 BODY FLAP EFFECTIVENESS

(M)MACH = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BD FLAP	SPDRK	ELEVON	REFERENCE INFORMATION
(E02101)	BA-203 LARC UPVT 1057 140 A/B DBB +DUMMY STING	.000	-11.700	SA.920	.000	SREF 2690.0000 SQ.FT.
(E02103)	BA-203 LARC UPVT 1057 140 A/B DBB +DUMMY STING	.000	-16.300	SA.920	.000	LREF 1290.0000 INCHES
(E02107)	BA-203 LARC UPVT 1057 140 A/B DBB	.000	-11.700	SA.920	.000	BREF 923.5000 INCHES
(E02109)	BA-203 LARC UPVT 1057 140 A/B DBB	.000	16.300	SA.920	.000	XPRP 1076.7000 INCHES
						YPRP .0000 INCHES
						ZPRP 375.0000 INCHES
						SCALE .0150

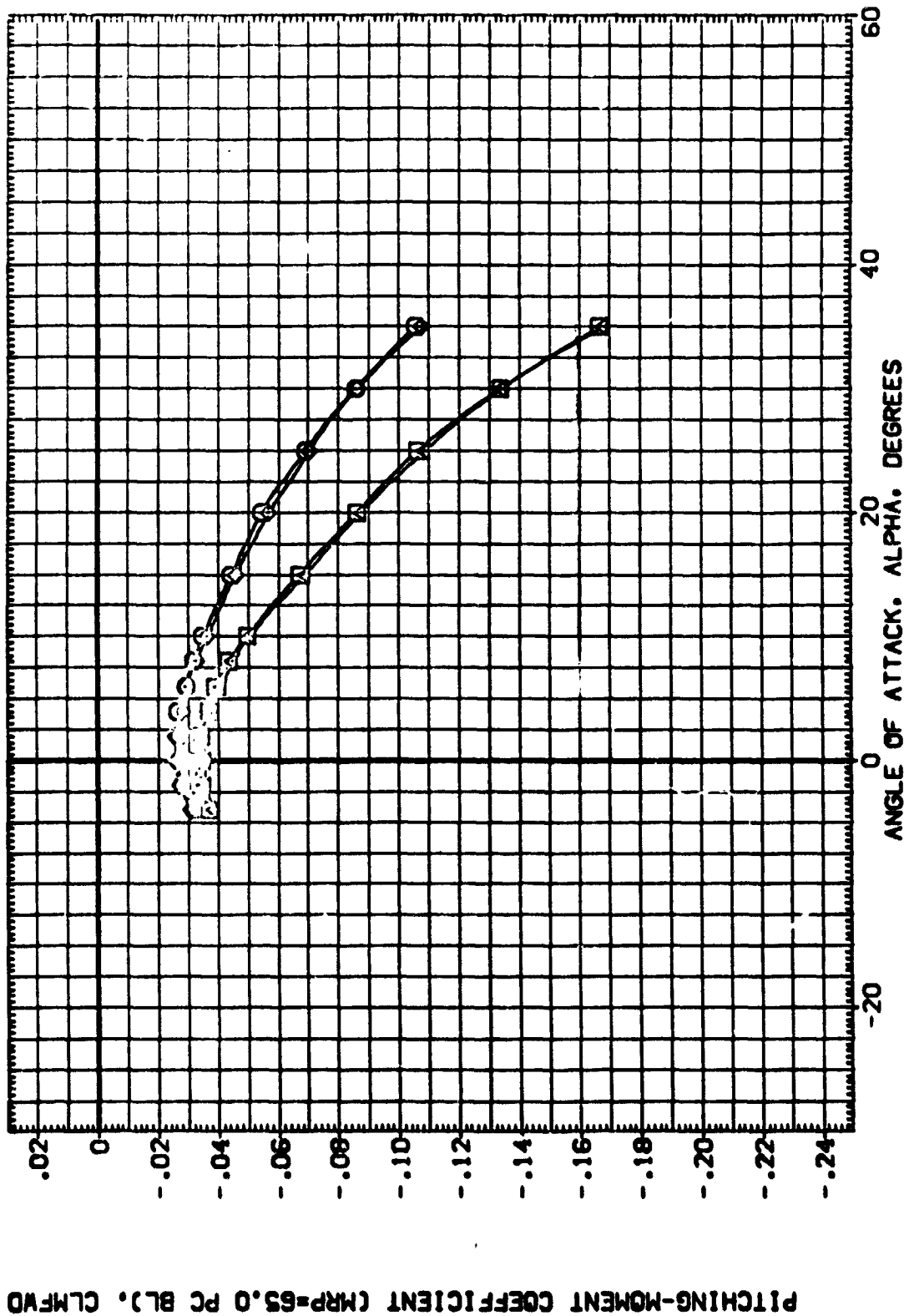


FIG.5 BODY FLAP EFFECTIVENESS

(B)MACH = 3.95

DATA SET SHEET CONFIGURATION DESCRIPTION BETA BODY FLAP SPEED ELEV REFERENCE INFORMATION SQ. FT. INCHES

(E02101)	GA-208 LARC UPVT 1057 140 A/B 058	.000	-11.700	54.920	.000	SREF	2690.0000	50.00
(E02102)	GA-208 LARC UPVT 1057 140 A/B 053	.000	-11.700	54.920	.000	LREF	1230.0000	10.00
(E02107)	GA-208 LARC UPVT 1057 140 A/B 053	.000	-11.700	54.920	.000	BREF	975.0000	10.00
(E02108)	GA-208 LARC UPVT 1057 140 A/B 058	.000	16.300	54.920	.000	XTRP	1076.7000	10.00
						YTRP	.0000	10.00
						ZTRP	375.0000	10.00
						SCALE	.0150	SCALE

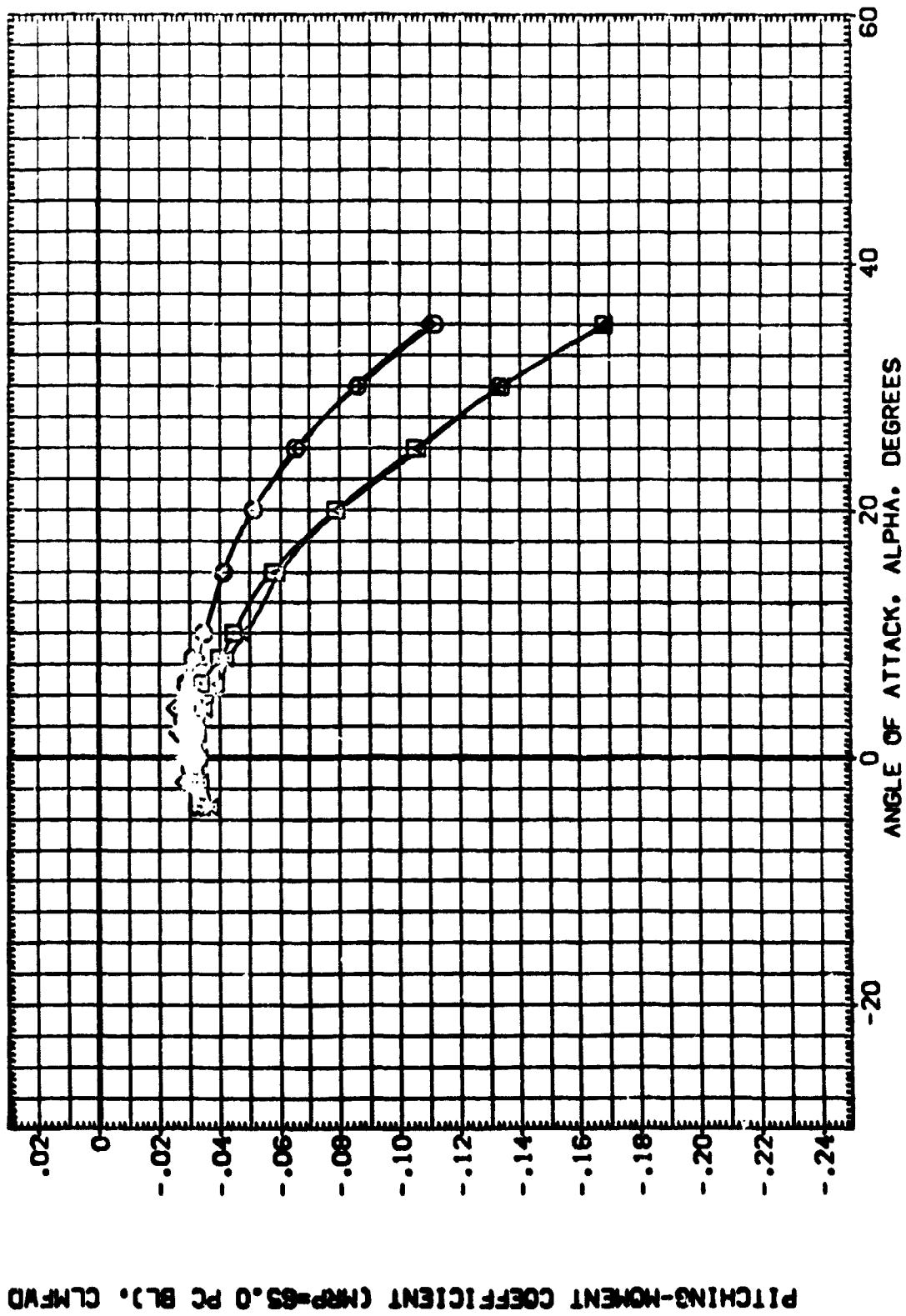


FIG.5 BODY FLAP EFFECTIVENESS

(C)MACH = 4.63

DATA SET SYMBOL	CONF	DESCRIPTION	BETA	BDLAP	SFOBRK	ELEVON	REFERENCE INFORMATION
(E02101)	DA-203	LARC UPVT 1057 140 A/B 058	.000	-11.700	54.920	.000	SREF 2690.0000 50.0 FT.
(E02103)	DA-203	LARC UPVT 1057 140 A/B 058	.000	-16.300	54.920	.000	LREF 1290.3000 INCHES
(E02107)	DA-203	LARC UPVT 1057 140 A/B 058	.000	-11.700	54.920	.000	BREF 936.0000 INCHES
(E02109)	DA-203	LARC UPVT 1057 140 A/B 058	.000	-16.300	54.920	.000	YPRP 1076.7000 INCHES
							ZPRP .0000 INCHES
							SCALE 375.0000 INCHES
							SCALE .0150

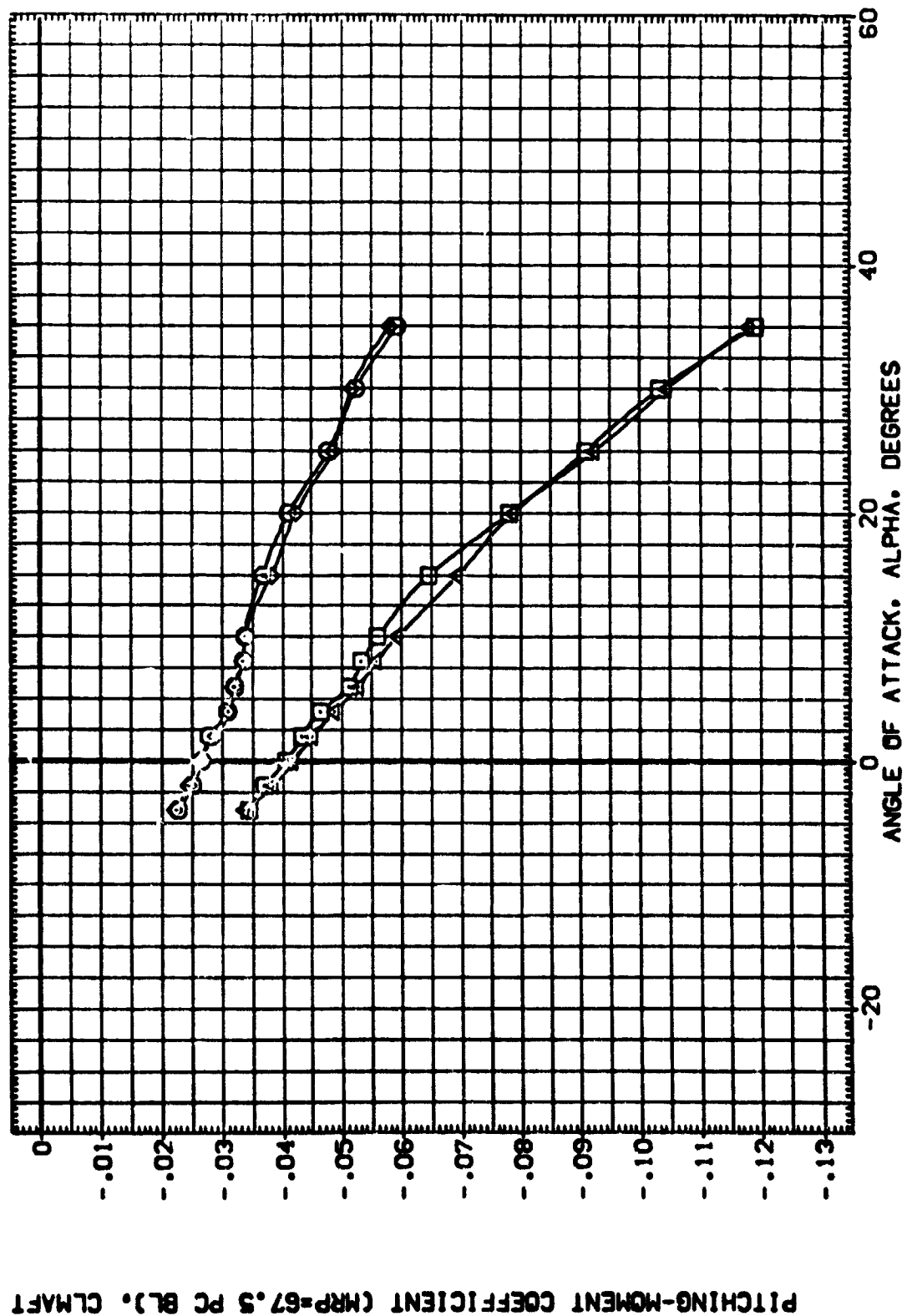


FIG.5 BODY FLAP EFFECTIVENESS
(A)MACH = 2.50

PITCHING-MOMENT COEFFICIENT ($M_{RP}=67.5$ PC BL), CLMAFT



(B)MACH = 3.95

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	REFLAP	SPORX	ELEVON	REFERENCE INFORMATION
(E02101)	□	0A-208 LARC UPVT 1057 140 A/B 028	.000	-11.700	54.520	.000	REF 2600.0000 50.00
(E02102)	□	0A-208 LARC UPVT 1057 140 A/B 028	.000	-16.300	54.520	.000	LREF 1200.3000 100.00
(E02103)	□	0A-208 LARC UPVT 1057 140 A/B 028	.000	-11.700	54.520	.000	BREF 975.5000 100.00
(E02104)	□	0A-208 LARC UPVT 1057 140 A/B 028	.000	-16.300	54.520	.000	REF 1076.7000 100.00
(E02105)	□	0A-208 LARC UPVT 1057 140 A/B 028	.000	-16.300	54.520	.000	REF 375.0000 100.00
							SCALE .0150

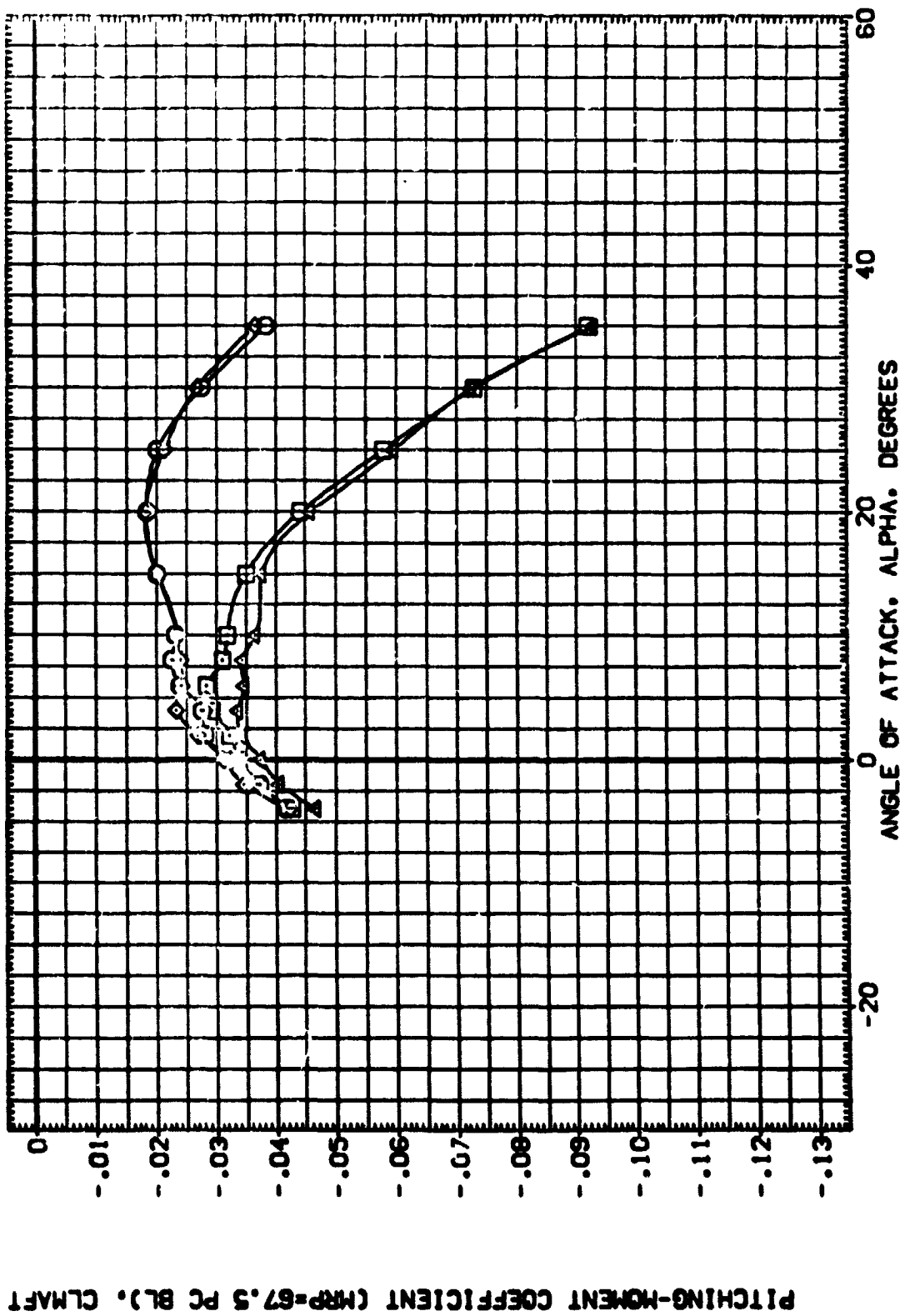


FIG. 5 BODY FLAP EFFECTIVENESS
(C)MACH = 4.63

DATA SET	DATE	CONF	DESCRIPTION	UNIT	107	140	A/B	808	809	810	811	812	813	814	815	816	817	818	819	820	821	822	823	824	825	826	827	828	829	830	831	832	833	834	835	836	837	838	839	840	841	842	843	844	845	846	847	848	849	850	851	852	853	854	855	856	857	858	859	860	861	862	863	864	865	866	867	868	869	870	871	872	873	874	875	876	877	878	879	880	881	882	883	884	885	886	887	888	889	890	891	892	893	894	895	896	897	898	899	900	901	902	903	904	905	906	907	908	909	910	911	912	913	914	915	916	917	918	919	920	921	922	923	924	925	926	927	928	929	930	931	932	933	934	935	936	937	938	939	940	941	942	943	944	945	946	947	948	949	950	951	952	953	954	955	956	957	958	959	960	961	962	963	964	965	966	967	968	969	970	971	972	973	974	975	976	977	978	979	980	981	982	983	984	985	986	987	988	989	990	991	992	993	994	995	996	997	998	999	1000
0A-207	LARC	UNIT	107	140	A/B	808	809	810	811	812	813	814	815	816	817	818	819	820	821	822	823	824	825	826	827	828	829	830	831	832	833	834	835	836	837	838	839	840	841	842	843	844	845	846	847	848	849	850	851	852	853	854	855	856	857	858	859	860	861	862	863	864	865	866	867	868	869	870	871	872	873	874	875	876	877	878	879	880	881	882	883	884	885	886	887	888	889	890	891	892	893	894	895	896	897	898	899	900	901	902	903	904	905	906	907	908	909	910	911	912	913	914	915	916	917	918	919	920	921	922	923	924	925	926	927	928	929	930	931	932	933	934	935	936	937	938	939	940	941	942	943	944	945	946	947	948	949	950	951	952	953	954	955	956	957	958	959	960	961	962	963	964	965	966	967	968	969	970	971	972	973	974	975	976	977	978	979	980	981	982	983	984	985	986	987	988	989	990	991	992	993	994	995	996	997	998	999	1000		

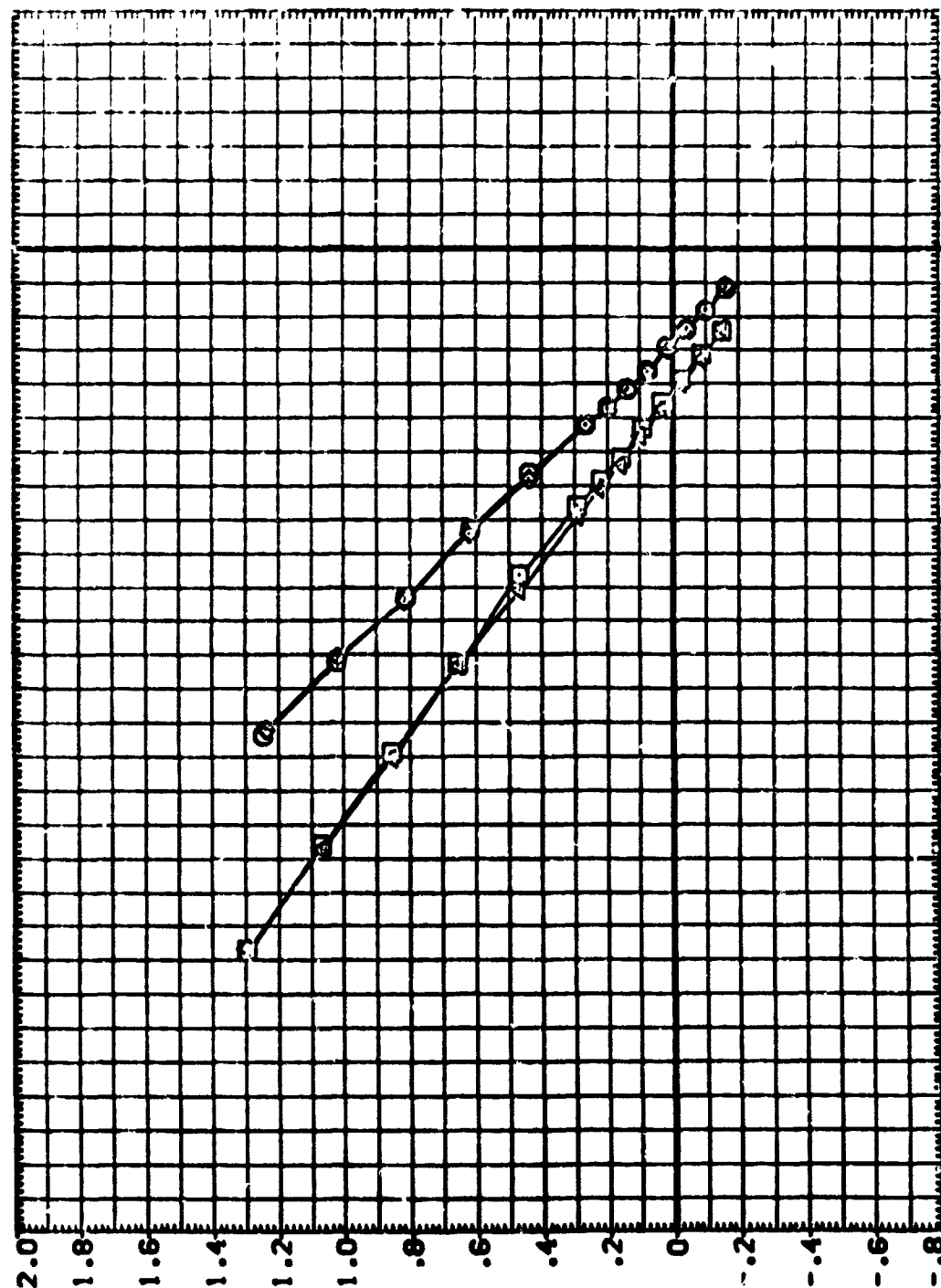


FIG. 5 500% FLAP EFFECTIVENESS

(A)MACH = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BD FLAP	SPOBRK	ELEVON	REFERENCE INFORMATION
(E02101)	GA-203 LARC UPVT 1057 140 A/B 058	.000	-11.700	54.920	.000	SREF 2690.0000 SQ.FT.
(E02103)	GA-203 LARC UPVT 1057 140 A/B 058	.000	-16.300	54.920	.000	LREF 1230.0000 INCHES
(E02107)	GA-203 LARC UPVT 1057 140 A/B 058	.000	-11.700	54.920	.000	BREF 923.0000 INCHES
(E02109)	GA-203 LARC UPVT 1057 140 A/B 058	.000	-16.300	54.920	.000	YMRP 1073.0000 INCHES
						ZMRP .0000 INCHES
						SCALE .0150

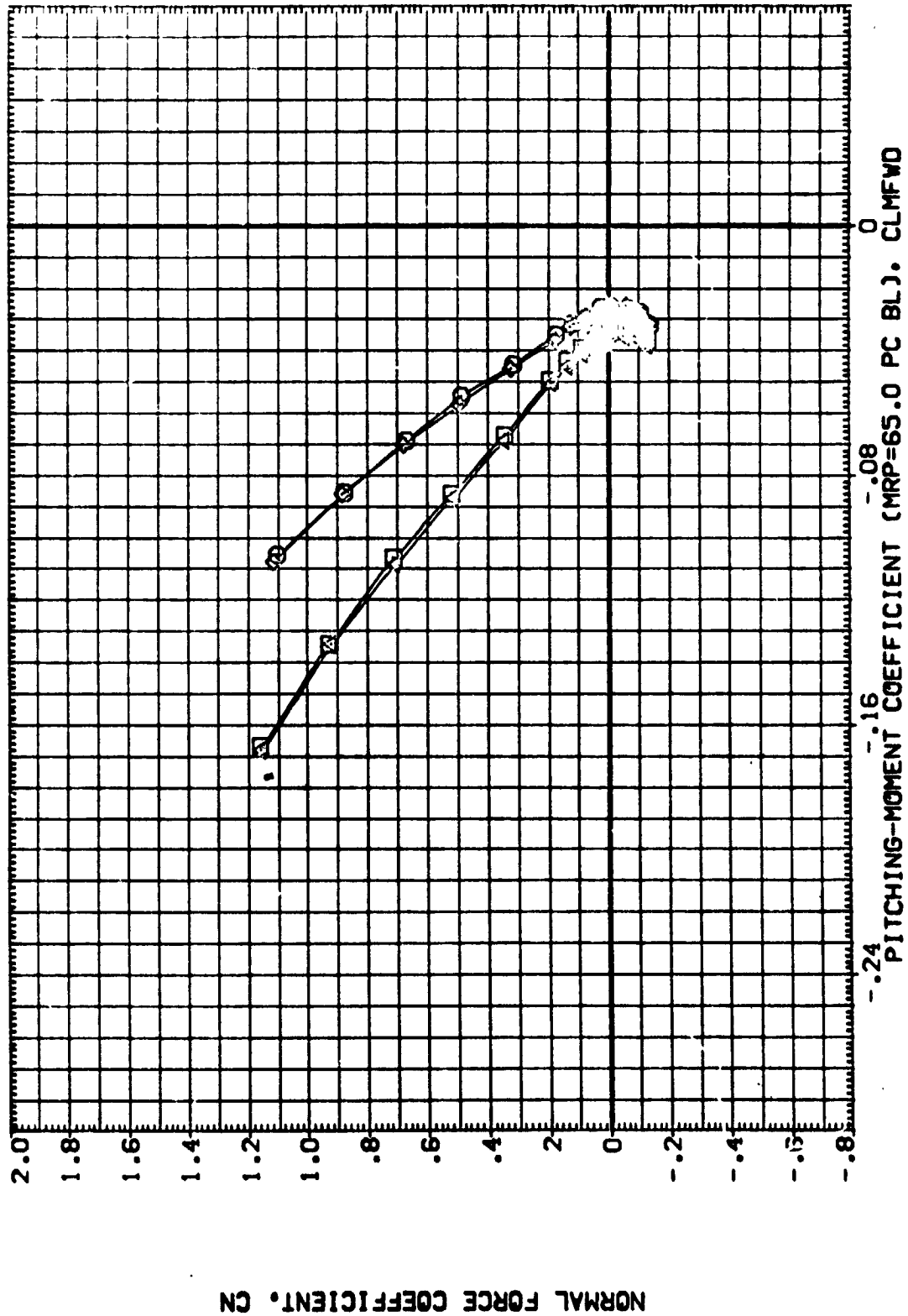


FIG.5 BODY FLAP EFFECTIVENESS

(B)MACH = 3.95

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BD FLAP	SPDBRK	ELEVON	REFERENCE INFORMATION
(ED2101)	0A-203 LARC UPAT 1057 140 A/B 608	.000	-11.700	54.920	.000	SREF 2690.0000 SQ. FT.
(ED2103)	0A-203 LARC UPAT 1057 140 A/B 603	.000	-16.300	54.920	.000	LRLE 1280.0000 INCHES
(ED2107)	0A-203 LARC UPAT 1057 140 A/B 603	.000	-11.700	54.920	.000	BRLE 500.0000 INCHES
(ED2109)	0A-203 LARC UPAT 1057 140 A/B 603	.000	-16.300	54.920	.000	XRPR 1073.0000 INCHES
						YMRP .0000 INCHES
						SCALE 375.0150

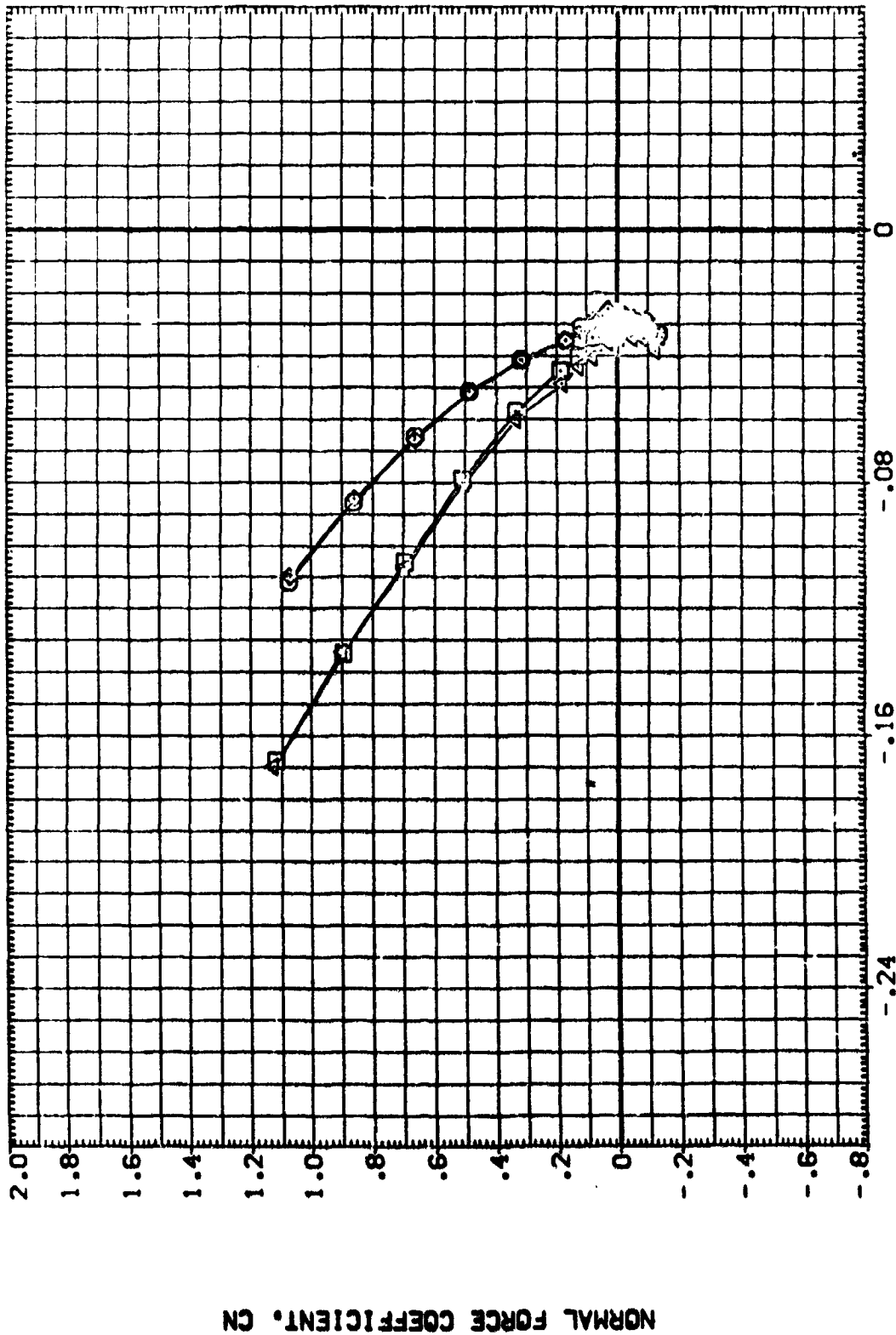


FIG. 16.5 BODY FLAP EFFECTIVENESS

(C)MACH = 4.63

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BOFLAP	SPDRK	ELEVON	REFERENCE INFORMATION	SO.FT.
(E02101)	DA-203 LARC UPVT 1037 140 A/B 088 +DUMMY STING	.000	-11.700	54.520	.000	SREF 2600.0000	INCHES
(E02103)	DA-203 LARC UPVT 1037 140 A/B 083 +DUMMY STING	.000	-11.700	54.520	.000	LREF 1200.0000	INCHES
(E02107)	DA-203 LARC UPVT 1037 140 A/B 088	.000	-11.700	54.520	.000	BREF 970.0000	INCHES
(E02109)	DA-203 LARC UPVT 1037 140 A/B 083	.000	-11.700	54.520	.000	YMRP 1073.7000	INCHES
						ZMRP .0000	INCHES
						SCALE 375.0000	SCALE

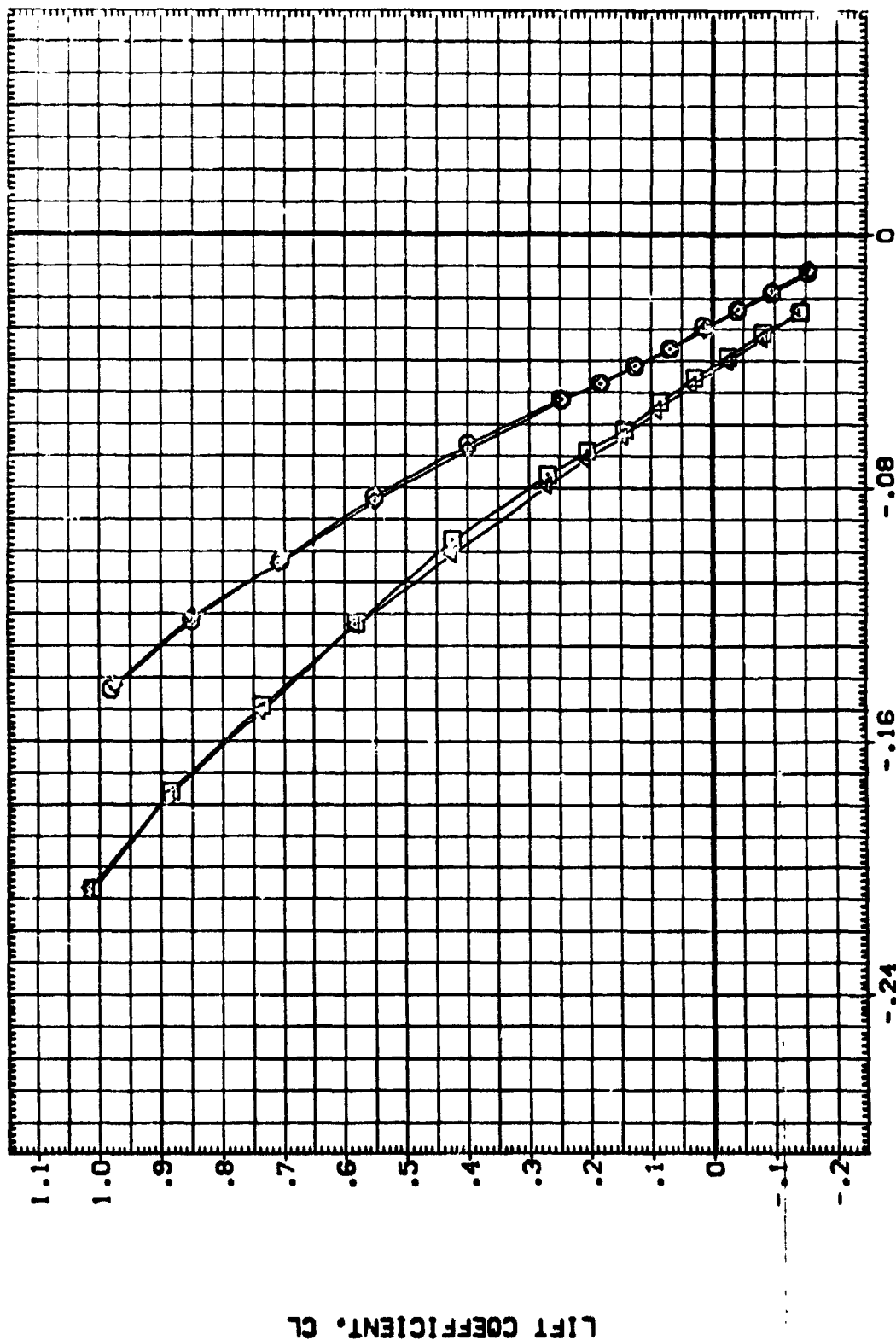


FIG.5 BODY FLAP EFFECTIVENESS

(A)MACH = 2.50

DATA SET SYMBOL CONFIGURATION DESCRIPTION REFERENCE INFORMATION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	SREF	LREF	BREF	XREF	YREF	ZREF	SCALE	ELEVON	SPBRK	BDFLAP	BETA	STING	STING	SO.FT.	INC.FT.	INC.DEG.	INC.DEG.
(E02101)	0A-208 LARC UPAT 1057 140 A/B 0/8	2630.0000	1230.0000	930.0000	10.0000	0.0000	0.0000	0.0100	.000	54.520	-11.700	.000	+DUMMY	+DUMMY	50.00	10.00	0.00	0.00
(E02103)	0A-208 LARC UPAT 1057 140 A/B 0/8	1230.0000	930.0000	10.0000	0.0000	0.0000	0.0000	0.0100	.000	54.520	-11.700	.000	+DUMMY	+DUMMY	10.00	0.00	0.00	0.00
(E02107)	0A-208 LARC UPAT 1057 140 A/B 0/8	930.0000	10.0000	0.0000	0.0000	0.0000	0.0000	0.0100	.000	54.520	-11.700	.000	+DUMMY	+DUMMY	0.00	0.00	0.00	0.00
(E02109)	0A-208 LARC UPAT 1057 140 A/B 0/8	10.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0100	.000	54.520	-11.700	.000	+DUMMY	+DUMMY	0.00	0.00	0.00	0.00

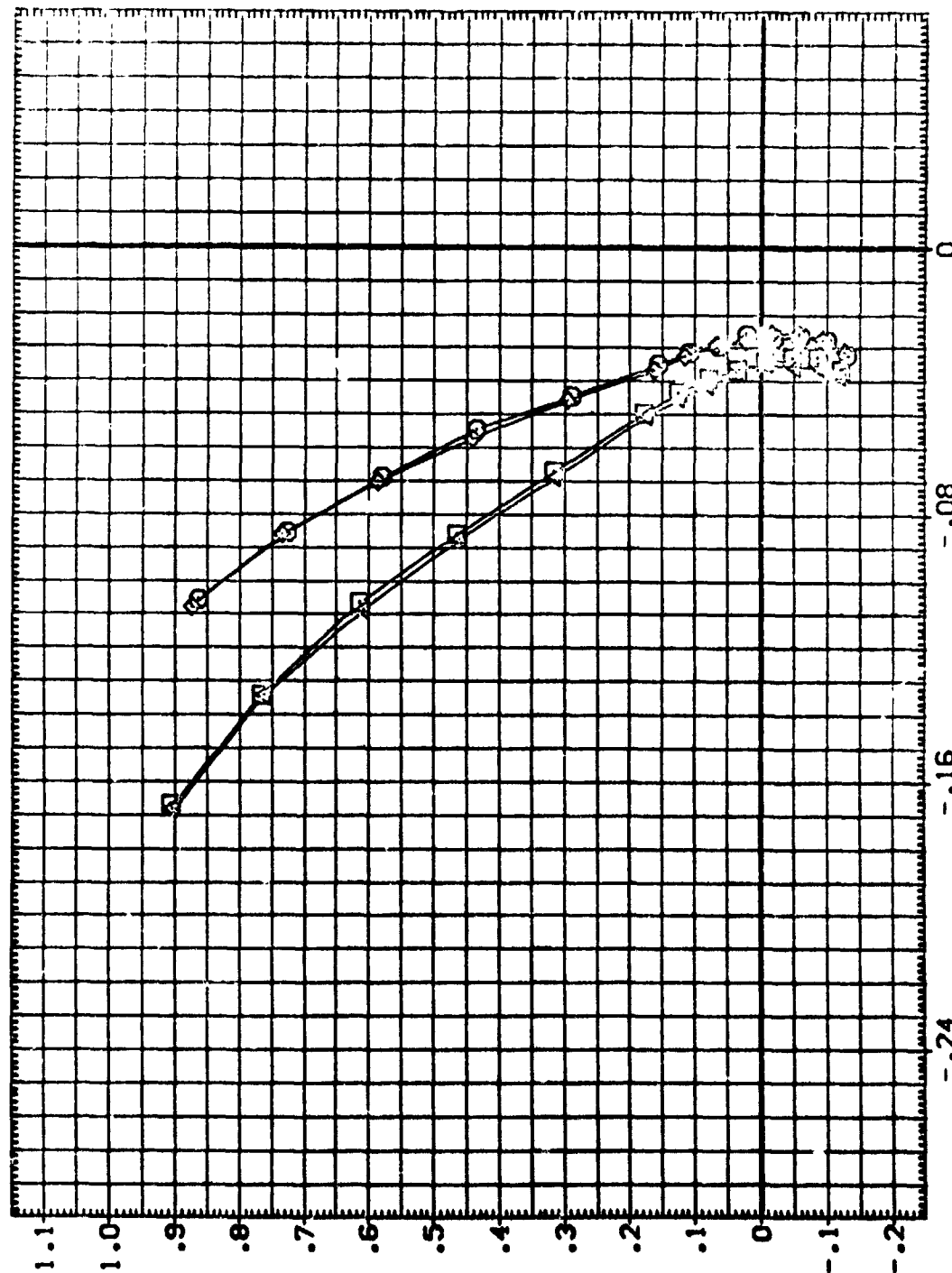


FIG.5 BODY FLAP EFFECTIVENESS

(B)MACH = 3.95

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BOFLAP	SPOBRK	ELEVON	REFERENCE INFORMATION
(E02101)	0A-203 LARC UPVT 1057 140 A/B 058	.000	-11.700	54.920	.000	SREF 2650.0000 SO.FT.
(E02103)	0A-203 LARC UPVT 1057 140 A/B 058	.000	-16.300	54.920	.000	LREF 2650.0000 INCHES
(E02107)	0A-203 LARC UPVT 1057 140 A/B 058	.000	-11.700	54.920	.000	BREF 2650.0000 INCHES
(E02109)	0A-203 LARC UPVT 1057 140 A/B 058	.000	-16.300	54.920	.000	XREF 1075.0000 INCHES
						YREF 0.0000 INCHES
						ZREF 375.0000 INCHES
						SCALE .0150 SCALE

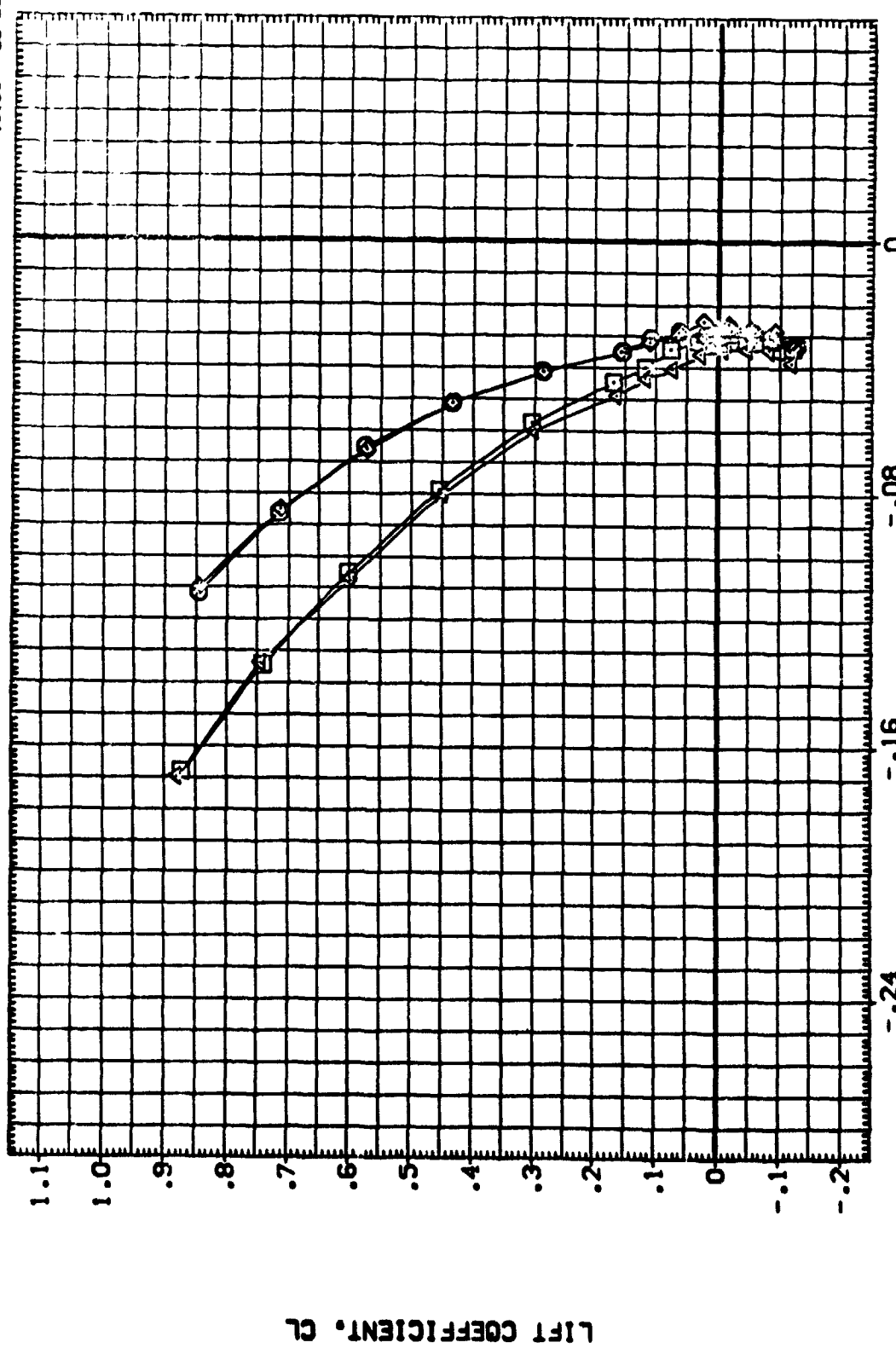


FIG.5.5 BODY FLAP EFFECTIVENESS
 (C)^{1/4}ACH = 4.63
 PITCHING-MOMENT COEFFICIENT (MRP=65.0 PC BL). CLMFW

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BD FLAP	SPDBRK	ELEVON	REFERENCE INFORMATION
(EDZ101)	0A-203 LARC UPVT 1057 140 A/B 008 +CLAMPY STING	.000	-11.700	54.920	.000	SREF 2690.0000 SQ.FT.
(EDZ103)	0A-203 LARC UPVT 1057 140 A/B 008 +CLAMPY STING	.000	-16.300	54.920	.000	LREF 1292.3000 INCHES
(EDZ107)	0A-203 LARC UPVT 1057 140 A/B 008	.000	-11.700	54.920	.000	BREF 935.6000 INCHES
(EDZ109)	0A-203 LARC UPVT 1057 140 A/B 008	.000	16.300	54.920	.000	XMRP 1073.7000 INCHES
						YMRP .0000 INCHES
						ZMRP 375.0000 INCHES
						SCALE .0150

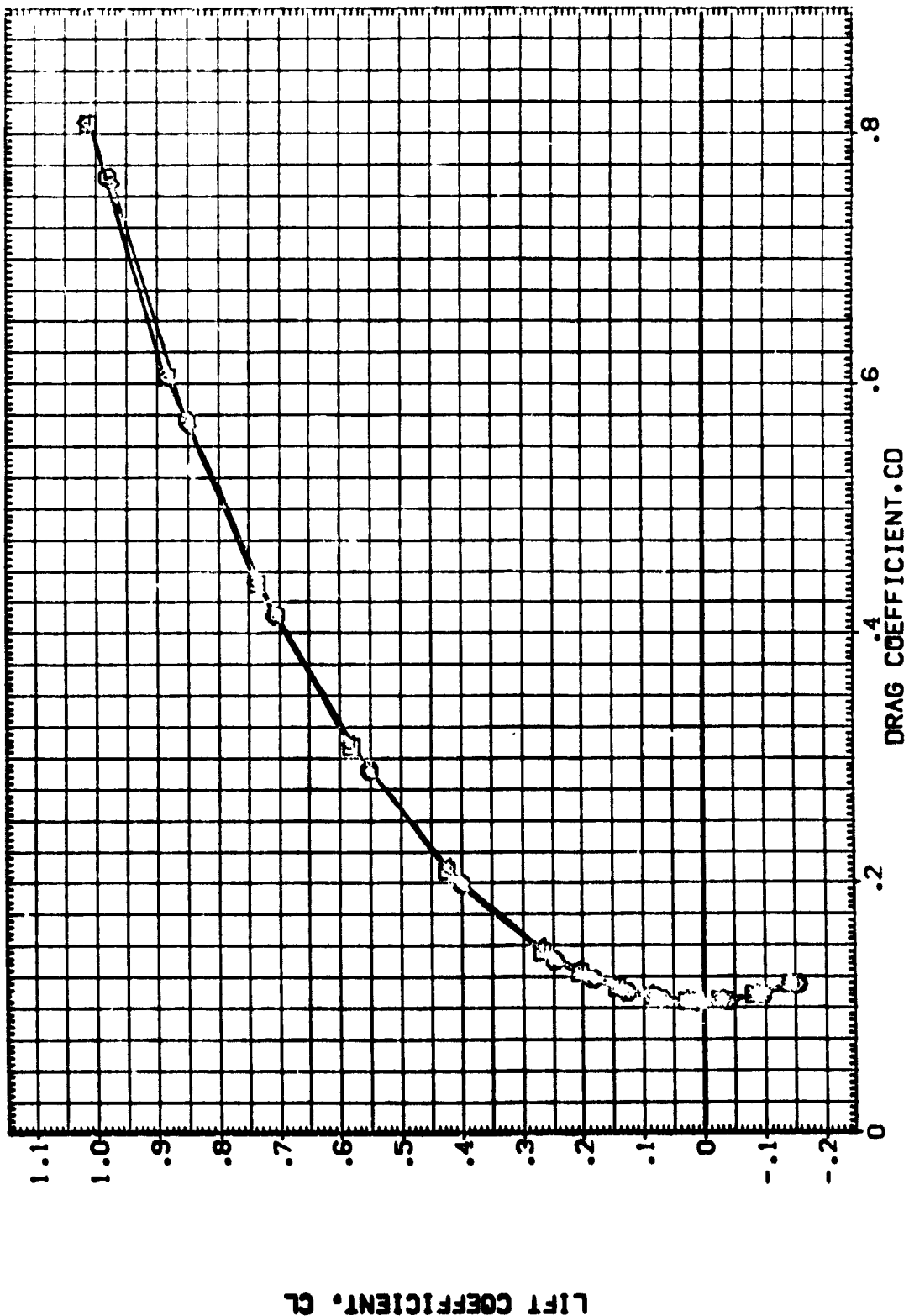


FIG.5 BODY FLAP EFFECTIVENESS

(A)MACH = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BD FLAP	SPODBRK	ELEVON	REFERENCE INFORMATION
(E02101)	0A-203 LARC UPVT 1037 140 A/B 078	.000	-11.700	54.920	.000	SREF 2670.0000 SQ.FT.
(E02103)	0A-203 LARC UPVT 1037 140 A/B 078	.000	-11.700	54.920	.000	LREF 1233.5000 INCHES
(E02107)	0A-203 LARC UPVT 1037 140 A/B 078	.000	-11.700	54.920	.000	BREF 935.6000 INCHES
(E02109)	0A-203 LARC UPVT 1037 140 A/B 078	.000	-11.700	54.920	.000	XPRP 1076.7000 INCHES
						YPRP .0000 INCHES
						ZPRP 375.0000 INCHES
						SCALE .0150 SCALE

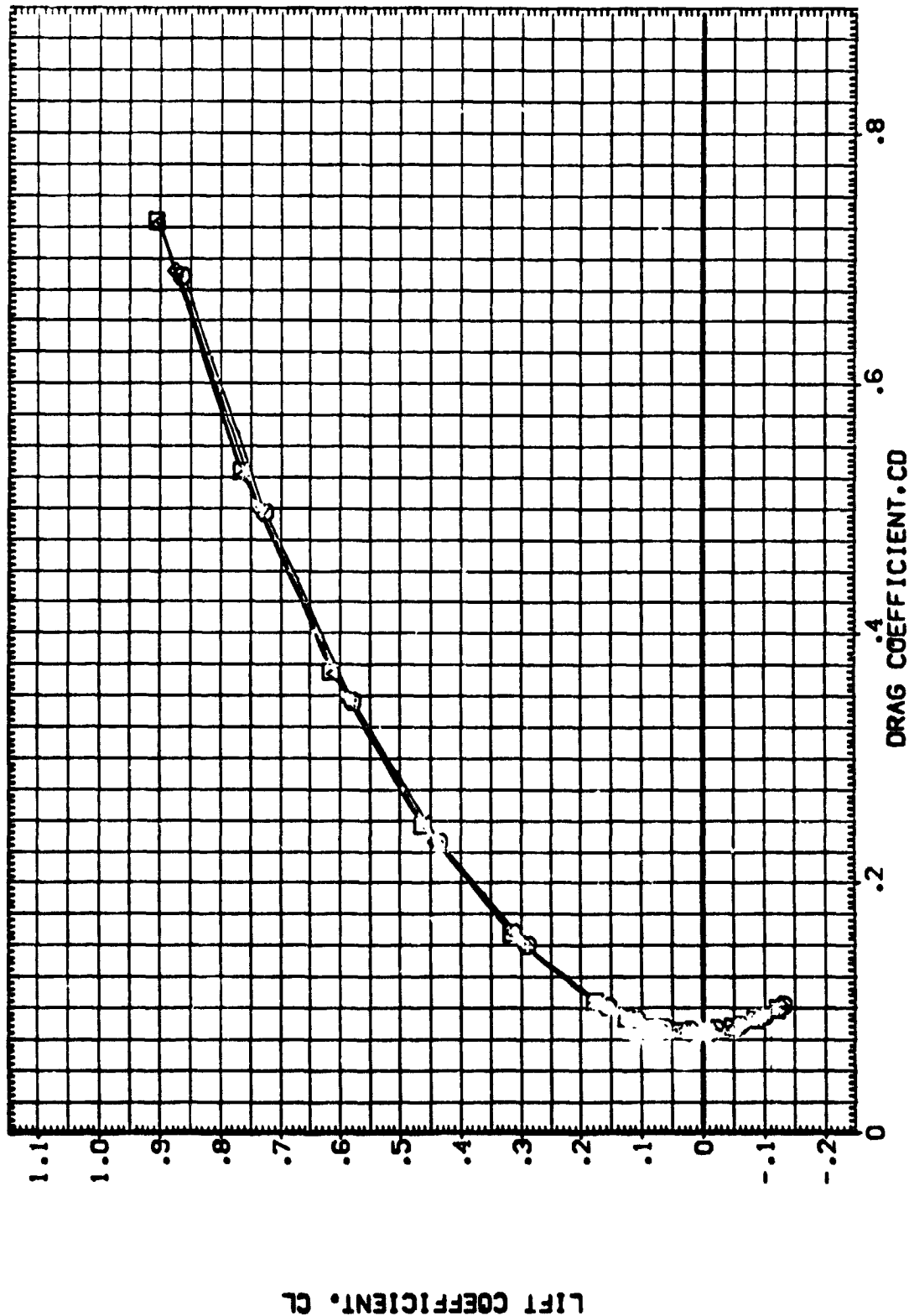


FIG. 16.5 BODY FLAP EFFECTIVENESS

(B)MACH = 3.95

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BOFLAP	SPOROK	ELEVON	REFERENCE INFORMATION
(E22101)	DA-203 LATE UPVT 1027 140 A/B 0/0	.000	-11.700	54.970	.000	SREF 2500.0000 52.57
(E22102)	DA-203 LATE UPVT 1027 140 A/B 0/0	.000	-11.700	54.970	.000	LINEF 1200.0000 100.00
(E22107)	DA-203 LATE UPVT 1027 140 A/B 0/0	.000	-11.700	54.970	.000	BOREF 1000.0000 100.00
(E22108)	DA-203 LATE UPVT 1027 140 A/B 0/0	.000	-11.700	54.970	.000	VALF 1000.0000 100.00
						ZREF 375.0000 100.00
						SCALE 100.0000 100.00

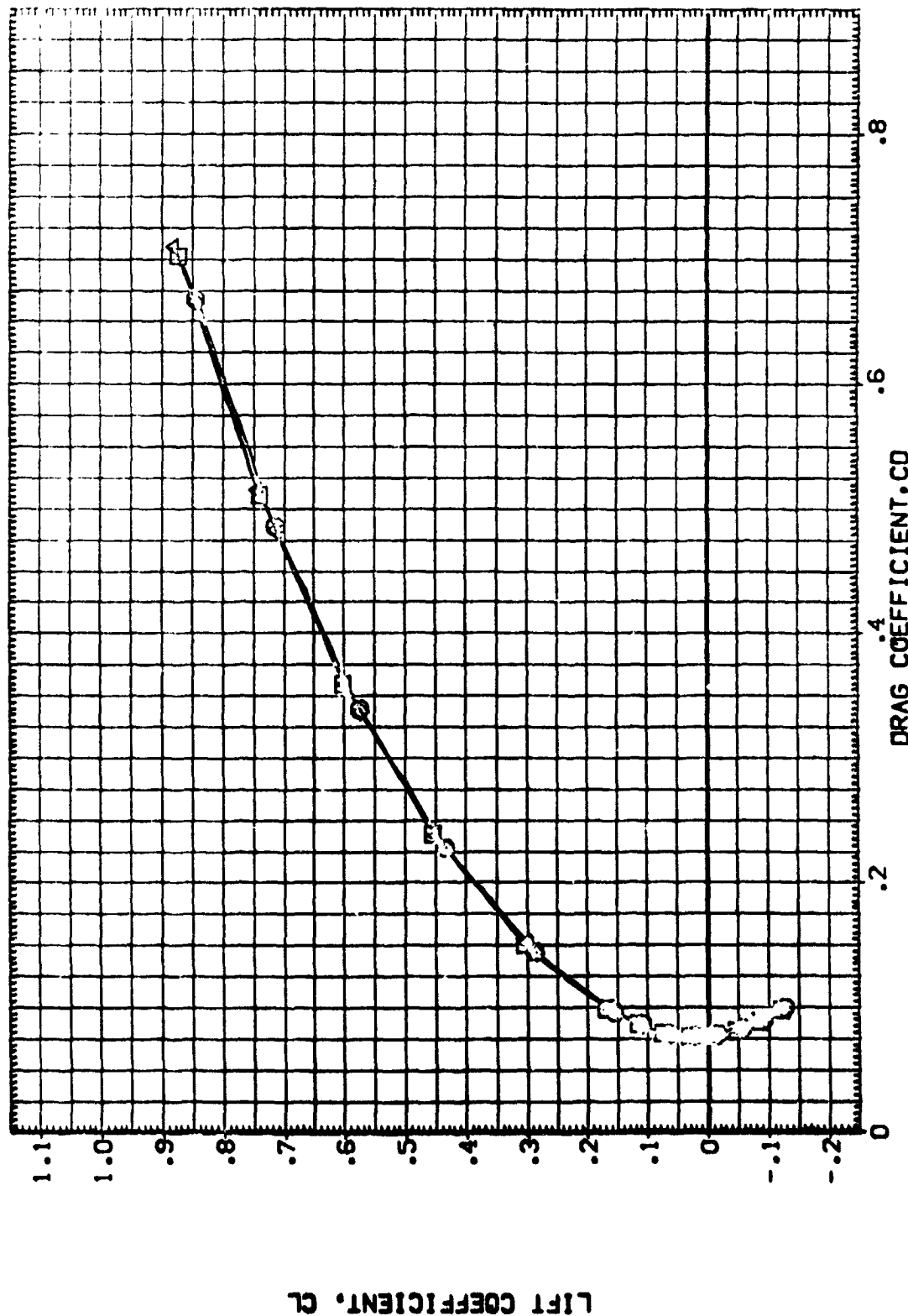


FIG.5 BODY FLAP EFFECTIVENESS

(C)MACH = 4.63

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BD FLAP	SPDRK	ELEVON	REFERENCE INFORMATION
(F02101)	BA-203 LARC UPVT 1027 140 A/B 000 +DUMMY STING	.000	-11.700	54.920	.000	SREF 2630.0000 50.17 INCHES
(F02103)	BA-203 LARC UPVT 1027 140 A/B 000 +DUMMY STING	.000	-16.300	54.920	.000	LREF 1250.0000 INCHES
(F02107)	BA-203 LARC UPVT 1027 140 A/B 000	.000	-11.700	54.920	.000	BREF 975.0000 INCHES
(F02109)	BA-203 LARC UPVT 1027 140 A/B 000	.000	16.300	54.920	.000	XREF 1075.7000 INCHES
						YREF 0.0000 INCHES
						ZREF 375.0000 INCHES
						SCALE .0150

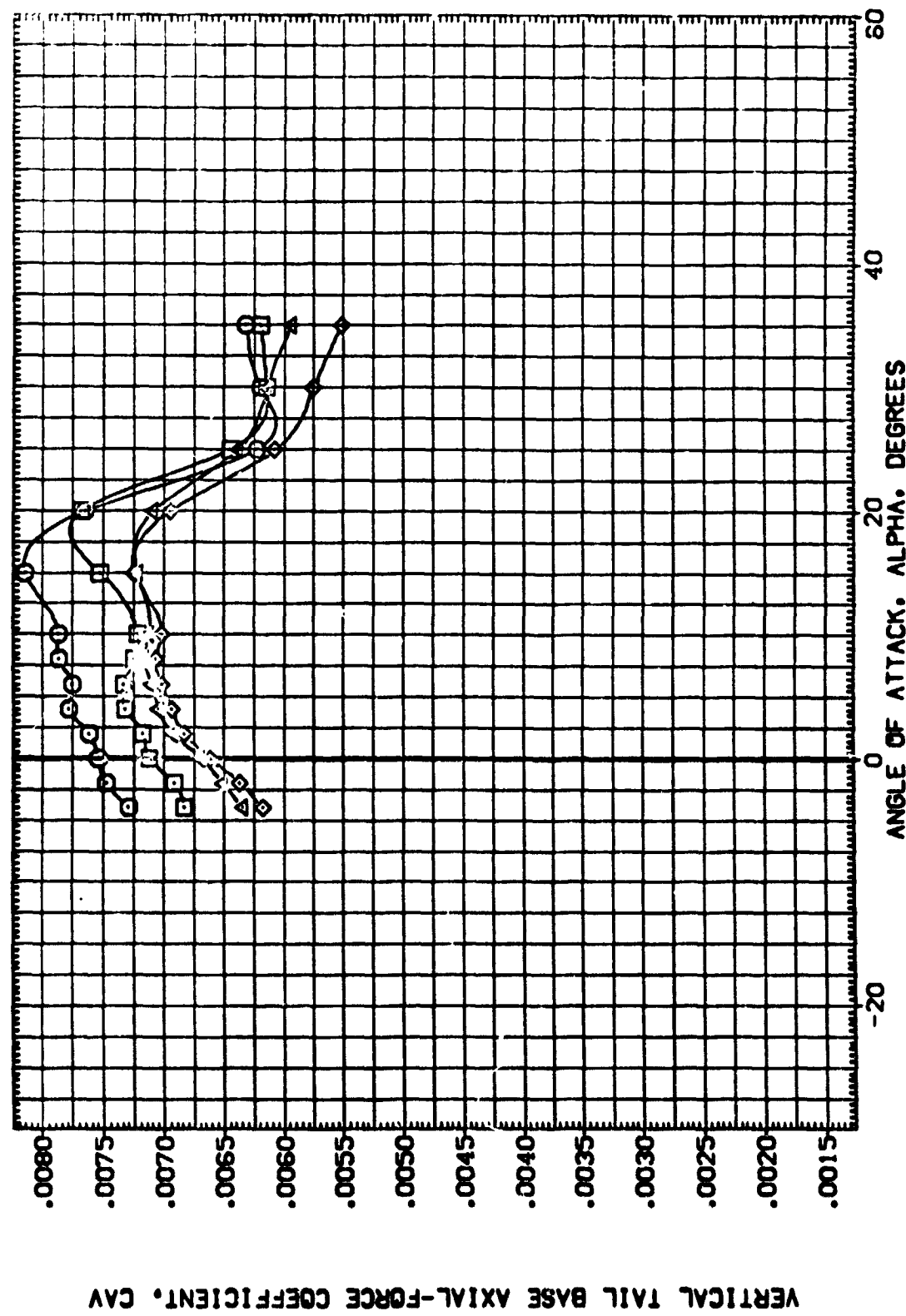


FIG.5 BODY FLAP EFFECTIVENESS

(M)MACH = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BOFLAP	SPDRK	ELEVON	REFERENCE INFORMATION
(F02101)	BA-208 LARC LPNT 1037 140 A/B 018	.000	-11.700	54.920	.000	SREF 2080.0000 50 FT.
(F02103)	BA-203 LARC LPNT 1027 140 A/B 018	.000	-16.320	54.920	.000	LREF 1000.0000 100 FT.
(F02107)	BA-203 LARC LPNT 1037 140 A/B 018	.000	-11.700	54.920	.000	BREF 1000.0000 100 FT.
(F02109)	BA-208 LARC LPNT 1037 140 A/B 018	.000	-16.300	54.920	.000	VMREF 1000.0000 100 FT.
						VMREF 375.0000 100 FT.
						SCALE 0.100

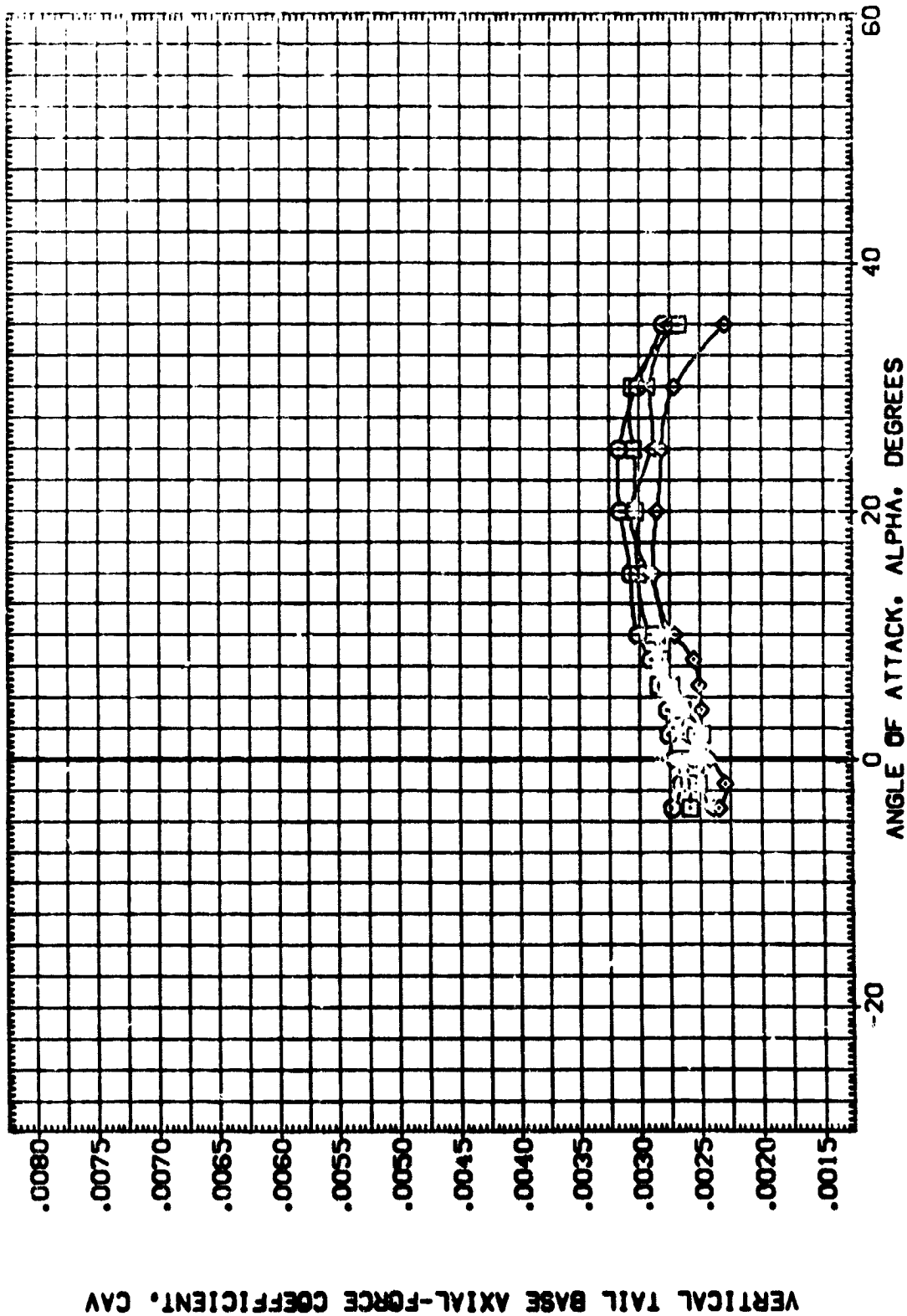


FIG. 5 BODY FLAP EFFECTIVENESS

(B)MACH = 3.95

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BD FLAP	SPOBRK	ELEVON	REFERENCE INFORMATION
(F02101)	0A-203 LATE UPVT 1037 140 A/B 078	.000	-11.700	54.920	.000	SREF 2690.0000 SQ.FT.
(F02103)	0A-203 LA T UPVT 1037 140 A/B 073	.000	-16.300	54.920	.000	LREF 1200.0000 INCHES
(F02107)	0A-203 LATE UPVT 1037 140 A/B 078	.000	-11.700	54.920	.000	BREF 6815.0000 INCHES
(F02109)	0A-203 LATE UPVT 1037 140 A/B 078	.000	-16.300	54.920	.000	YREF 10715.0000 INCHES
						WREF 375.0000 INCHES
						SCALE .0150

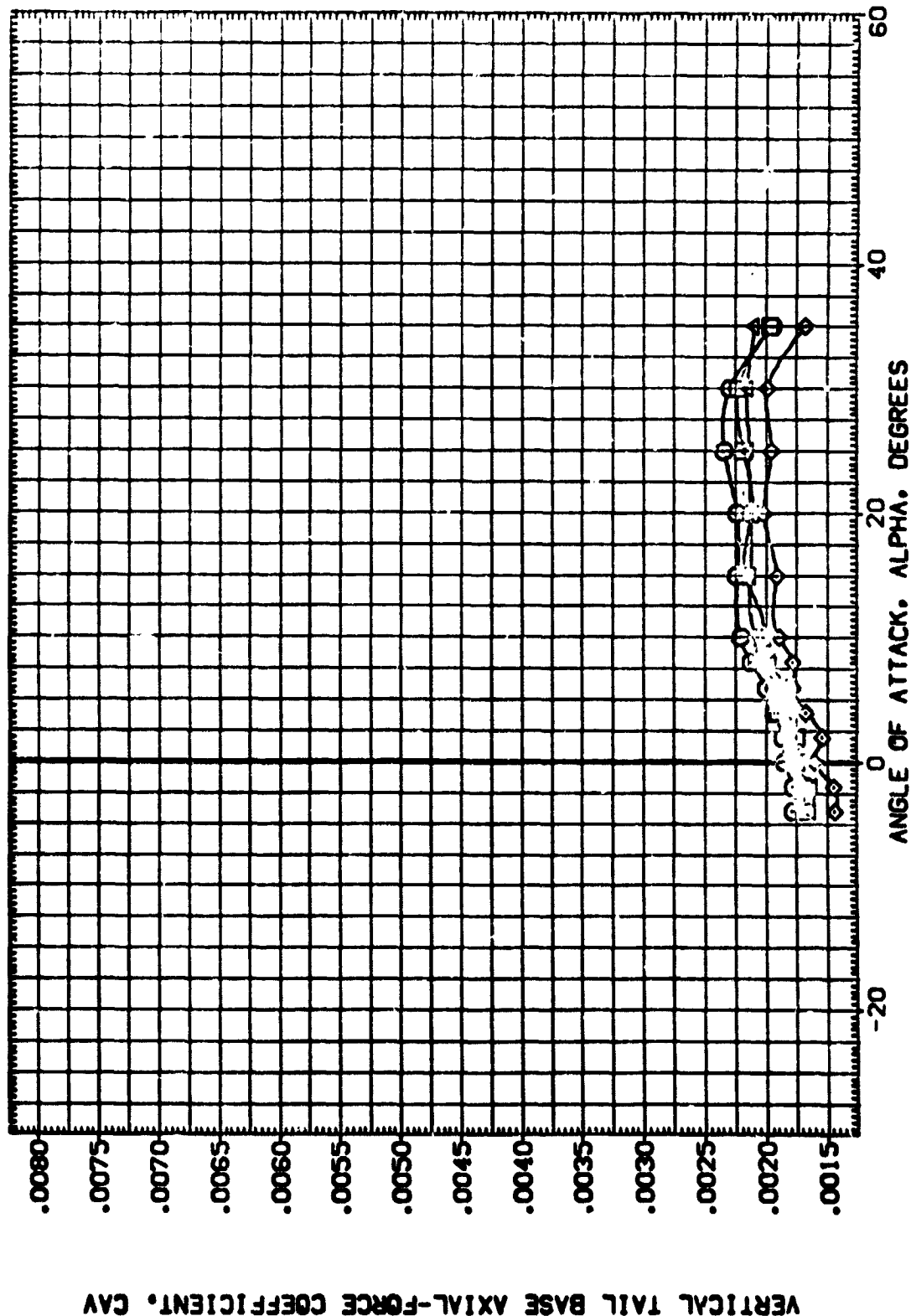


FIG.5 BODY FLAP EFFECTIVENESS

(C)MACH = 4.63

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BOFLAP	SPOBRK	ELEVON	REFERENCE INFORMATION
[F02101]	0A-203 LAKE UPVT 1037 140 A/B 000	.000	-11.700	54.920	.000	SREF 2690.0000 SQ.FT.
[F02102]	0A-203 LAKE UPVT 1037 140 A/B 000	.000	-16.300	54.920	.000	LREF 17.300000 NOSES
[F02107]	0A-203 LAKE UPVT 1037 140 A/B 000	.000	-11.700	54.920	.000	YREF 16.300000
[F02108]	0A-203 LAKE UPVT 1037 140 A/B 000	.000	-16.300	54.920	.000	YREF 16.300000
						YREF 375.0000
						SCALE .0150

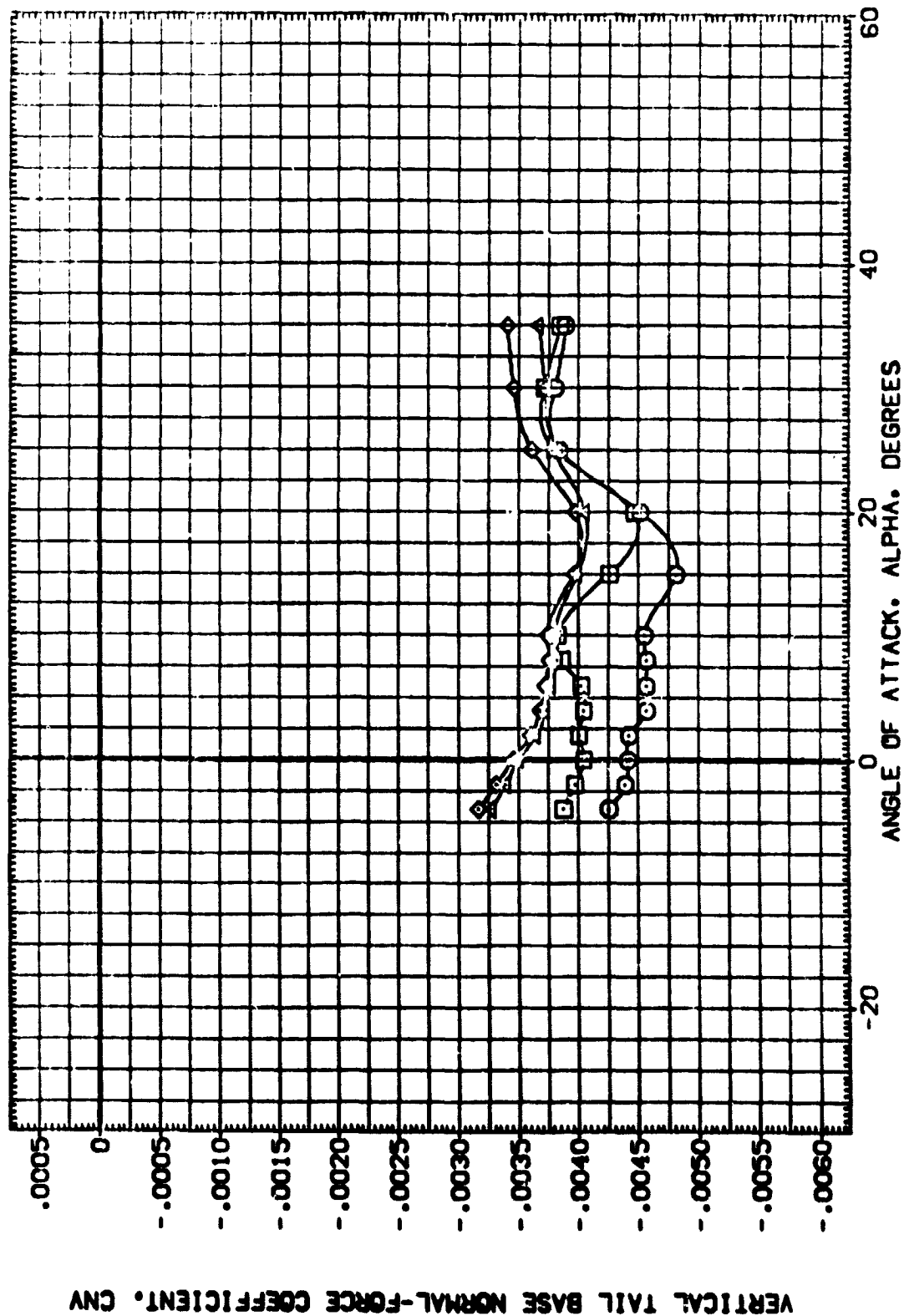


FIG.5 BODY FLAP EFFECTIVENESS

(A)MACH = 2.50

DATA SET SYMBOL: 0A-203 LARC UPVT 107 140 A/B 008 003 003 003
 (F02101) 0A-203 LARC UPVT 107 140 A/B 008 003 003 003
 (F02102) 0A-203 LARC UPVT 107 140 A/B 008 003 003 003
 (F02103) 0A-203 LARC UPVT 107 140 A/B 008 003 003 003

CONFIGURATION DESCRIPTION: 0A-203 LARC UPVT 107 140 A/B 008 003 003 003
 0A-203 LARC UPVT 107 140 A/B 008 003 003 003
 0A-203 LARC UPVT 107 140 A/B 008 003 003 003
 0A-203 LARC UPVT 107 140 A/B 008 003 003 003

BETA: 0.000 0.000 0.000 0.000
 BOFLAP: -11.700 -16.300 -16.300 -16.300
 SPORBK: 54.920 54.920 54.920 54.920
 ELEVON: .000 .000 .000 .000

REFERENCE INFORMATION: SREF 2630.0000 SQ.FT. 1100-ES
 LREF 1290.0000 1100-ES
 BREF 975.0000 1100-ES
 YREF 107.5000 1100-ES
 ZREF 375.0000 1100-ES
 SCALE .0150 SCALE

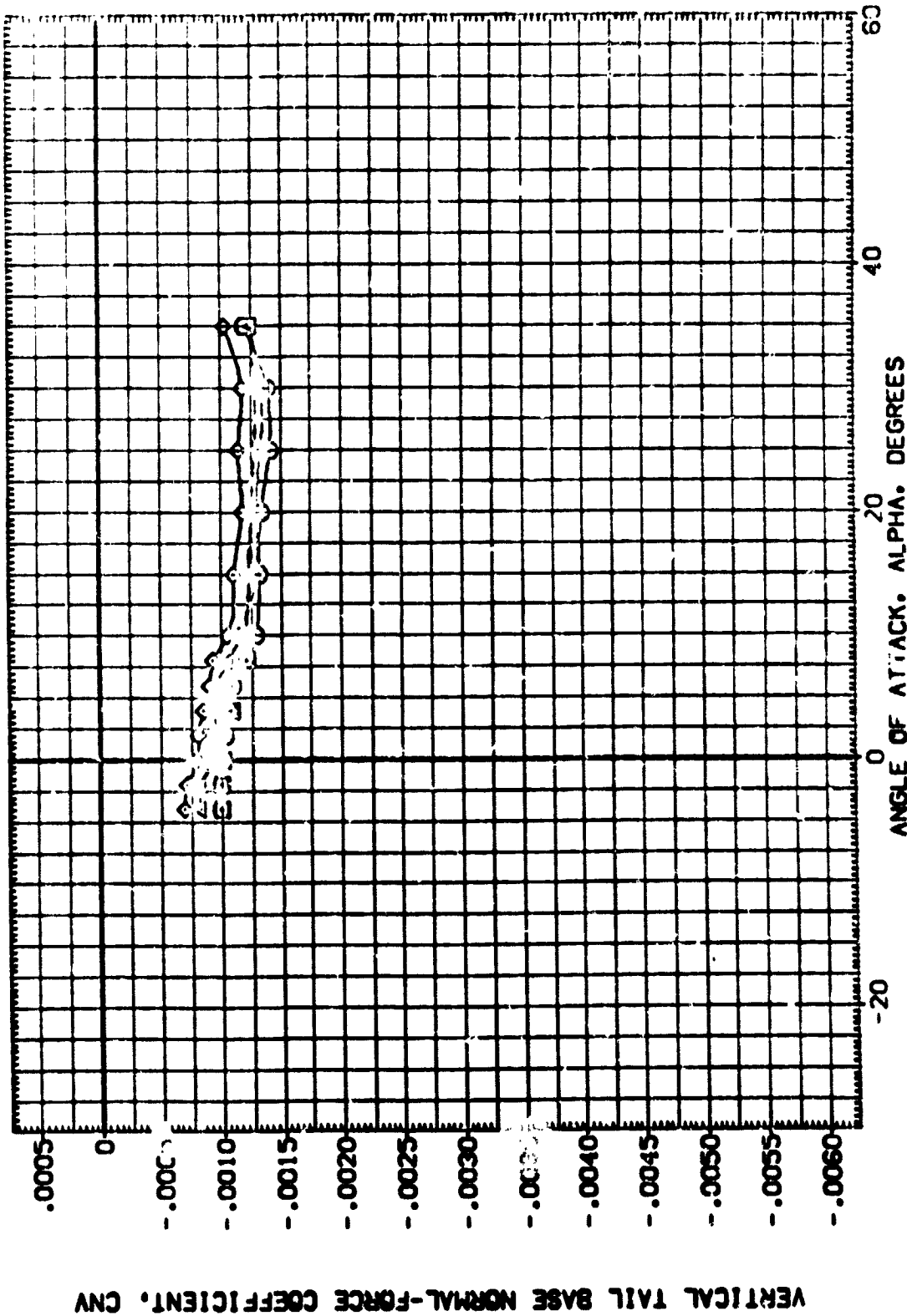


FIG.5 BODY FLAP EFFECTIVENESS
 (C)MACH = 4.63

DATA SET	SYMBOL	CONFIGURATION	DESCRIPTION	BETA	BOFLAP	SPOBRK	ELEVON	REFERENCE INFORMATION
[F02101]	□	DA-203	LARC UPVT 1057 140 A/B 038	.000	-11.700	54.920	.000	SREF 2670.0000 SQ.FT.
[F02103]	□	DA-203	LARC UPVT 1057 140 A/B 038	.000	-11.700	54.920	.000	LREF 1200.0000 INCHES
[F02107]	□	DA-203	LARC UPVT 1057 140 A/B 038	.000	-11.700	54.920	.000	BREF 900.0000 INCHES
[F02109]	□	DA-203	LARC UPVT 1057 140 A/B 038	.000	-11.700	54.920	.000	XREF 1075.0000 INCHES
								YREF 375.0000 INCHES
								SCALE .0150

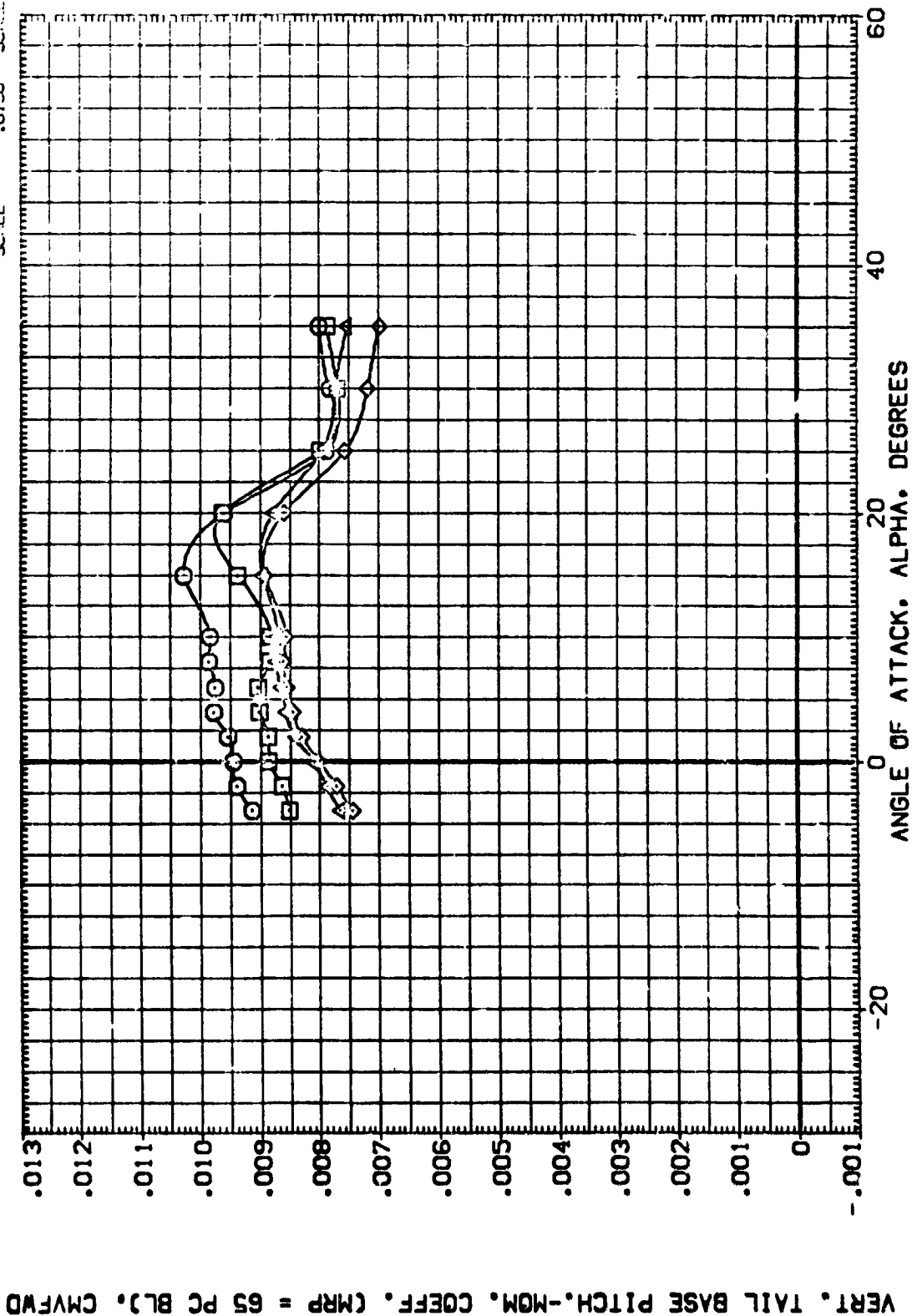



FIG.5 BODY FLAP EFFECTIVENESS

(MACH = 2.50)

DATA SET SYMBOL:  CONFIGURATION DESCRIPTION: DA-208 LARC UPVT 1097 140 A/B 088 +QUIN STING; DA-203 LARC UPVT 1097 140 A/B 073 +QUIN STING; DA-203 LARC UPVT 1097 140 A/B 073; DA-203 LARC UPVT 1097 140 A/B 073

BETA: .000, .000, .000, .000

BOFLAP: -11.700, -16.300, -11.700, -16.300

SPOBRK: 54.920, 54.920, 54.920, 54.920

ELEVON: .000, .000, .000, .000

REFERENCE INFORMATION: SREF 2000.0000 60.000; LREF 1200.0000 30.000; PREF 900.0000 15.000; XREF 1070.0000 10.000; YREF 375.0000 3.750; ZREF 0.0000 0.000; SCALE 0.000

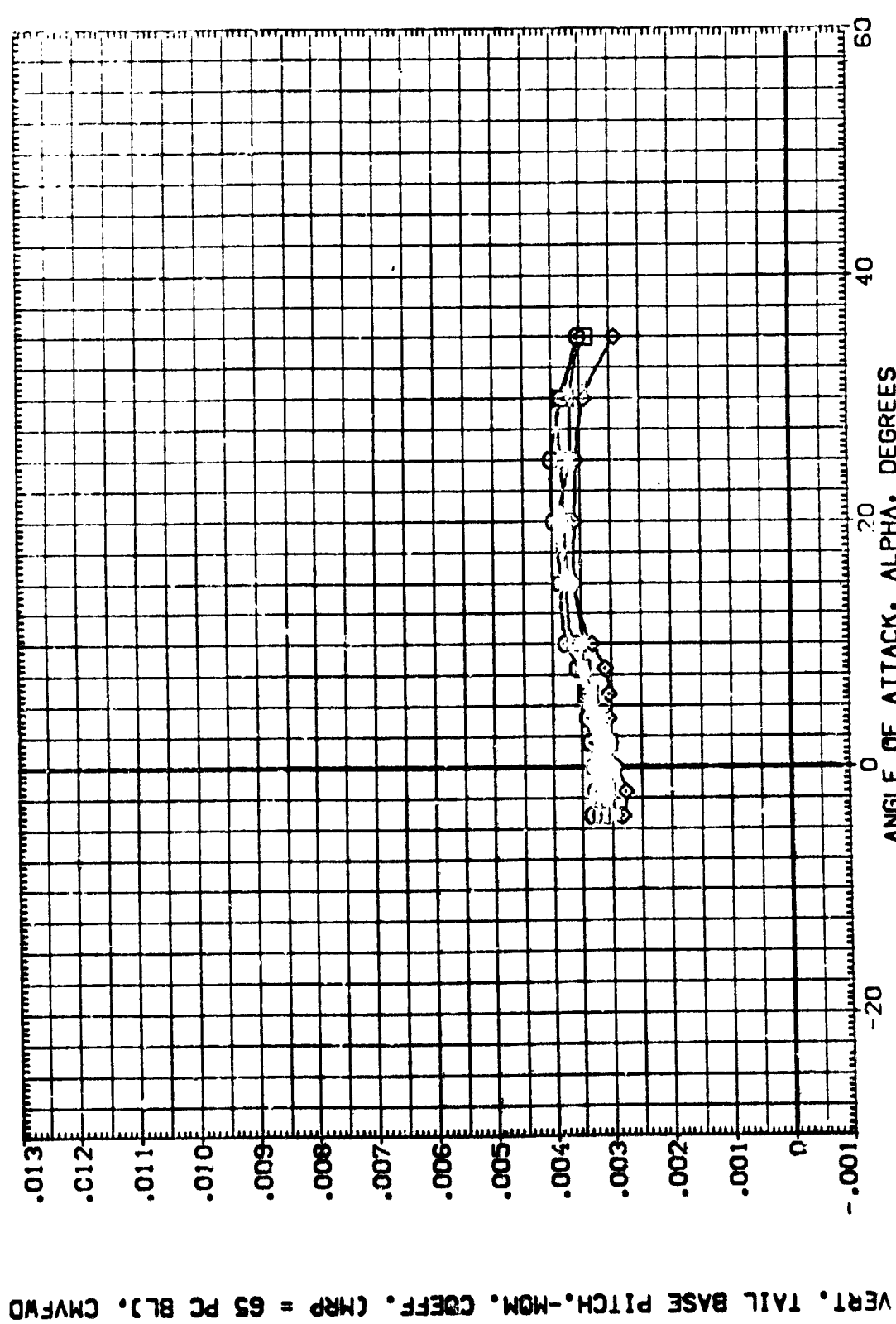


FIG. 16.5 BODY FLAP EFFECTIVENESS
(B)MACH = 3.95

VERT. TAIL BASE PITCH.-MOM. COEFF. (MRP = 65 PC BL), CMVFD

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BOFLAP	SPOBRK	ELEVON	REFERENCE INFORMATION
(F02101)	DA-203 LARC UPVT 1027 140 A/B 058 +DUMMY STING	.000	-11.700	54.920	.000	SREF 2690.0000 SQ.FT.
(F02103)	DA-203 LARC UPVT 1027 140 A/B 053 +DUMMY STING	.000	-16.300	54.920	.000	LREF 1290.3000 INCHES
(F02107)	DA-203 LARC UPVT 1027 140 A/B 053	.000	-11.700	54.920	.000	BREF 923.6700 INCHES
(F02109)	DA-203 LARC UPVT 1027 140 A/B 053	.000	-16.300	54.920	.000	XREF 1076.7000 INCHES
						YREF .0000 INCHES
						ZREF 375.0000 INCHES
						SCALE .0150

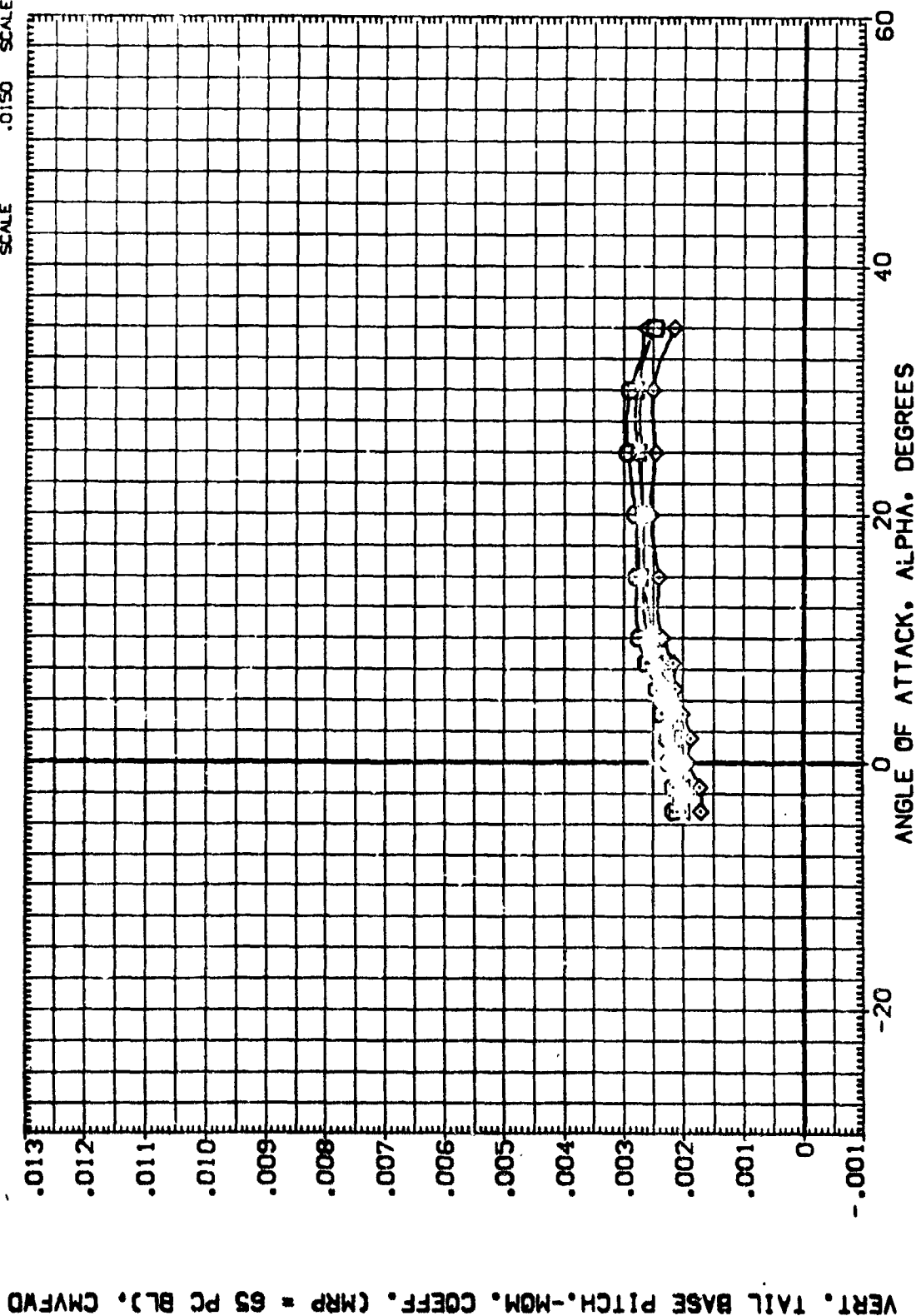




FIG.5 BODY FLAP EFFECTIVENESS

(CMACH = 4.63

DATA SET SYMBOL:   CONFIGURATION DESCRIPTION: 0A-203 LARC LPVT 1057 140 A/B 058 +DUMMY STING 0A-203 LARC LPVT 1057 140 A/B 058 +DUMMY STING 0A-203 LARC LPVT 1057 140 A/B 058 0A-203 LARC LPVT 1057 140 A/B 058

BETA: .000 .000 .000 .000

BOFLAP: -11.700 -11.700 -11.700 -11.700

SPOBRK: 54.920 54.920 54.920 54.920

ELEVON: .000 .000 .000 .000

REFERENCE INFORMATION: SREF 2000.0000 50.000 1720.0000 100.000 922.0000 100.000 1076.0000 100.000 YMRP .0000 375.0000 100.000 ZMRP .0000 375.0000 100.000 SCALE .0100

VERT. TAIL BASE PITCH.-MOM. COEFF. (MRP = 67.5 PC BL). CMVAFT

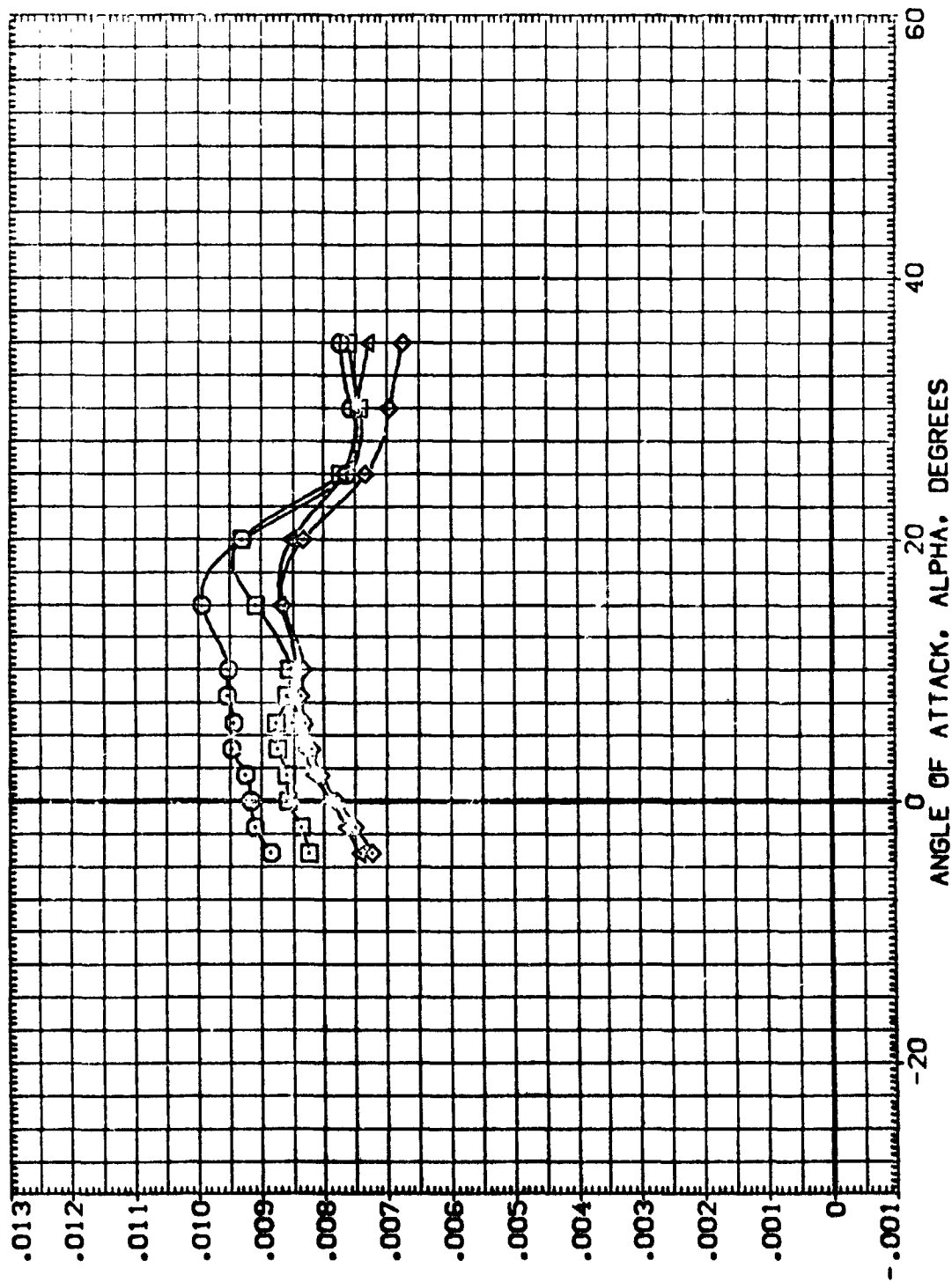


FIG.5 BODY FLAP EFFECTIVENESS

(A)MACH = 2.50



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BD FLAP	SPDBRK	ELEVON	REFERENCE INFORMATION
(F02101)	DA-203 LARC UPVT 1097 140 A/B DBB +DUMMY STING	.000	-11.700	54.920	.000	SREF 2690.0000 SQ.FT.
(F02103)	DA-203 LARC UPVT 1097 140 A/B DBB +DUMMY STING	.000	-16.300	54.920	.000	LREF 1290.3000 INCHES
(F02107)	DA-203 LARC UPVT 1097 140 A/B DBB	.000	-11.700	54.920	.000	BREF 903.0000 INCHES
(F02109)	DA-203 LARC UPVT 1097 140 A/B DBB	.000	-16.300	54.920	.000	XMRP 1075.7000 INCHES
						YMRP .0000 INCHES
						ZMRP 375.0000 INCHES
						SCALE .0150 SCALE

VERT. TAIL BASE PITCH.-MOM. COEFF. (MRP = 67.5 PC BL). CMVAFT

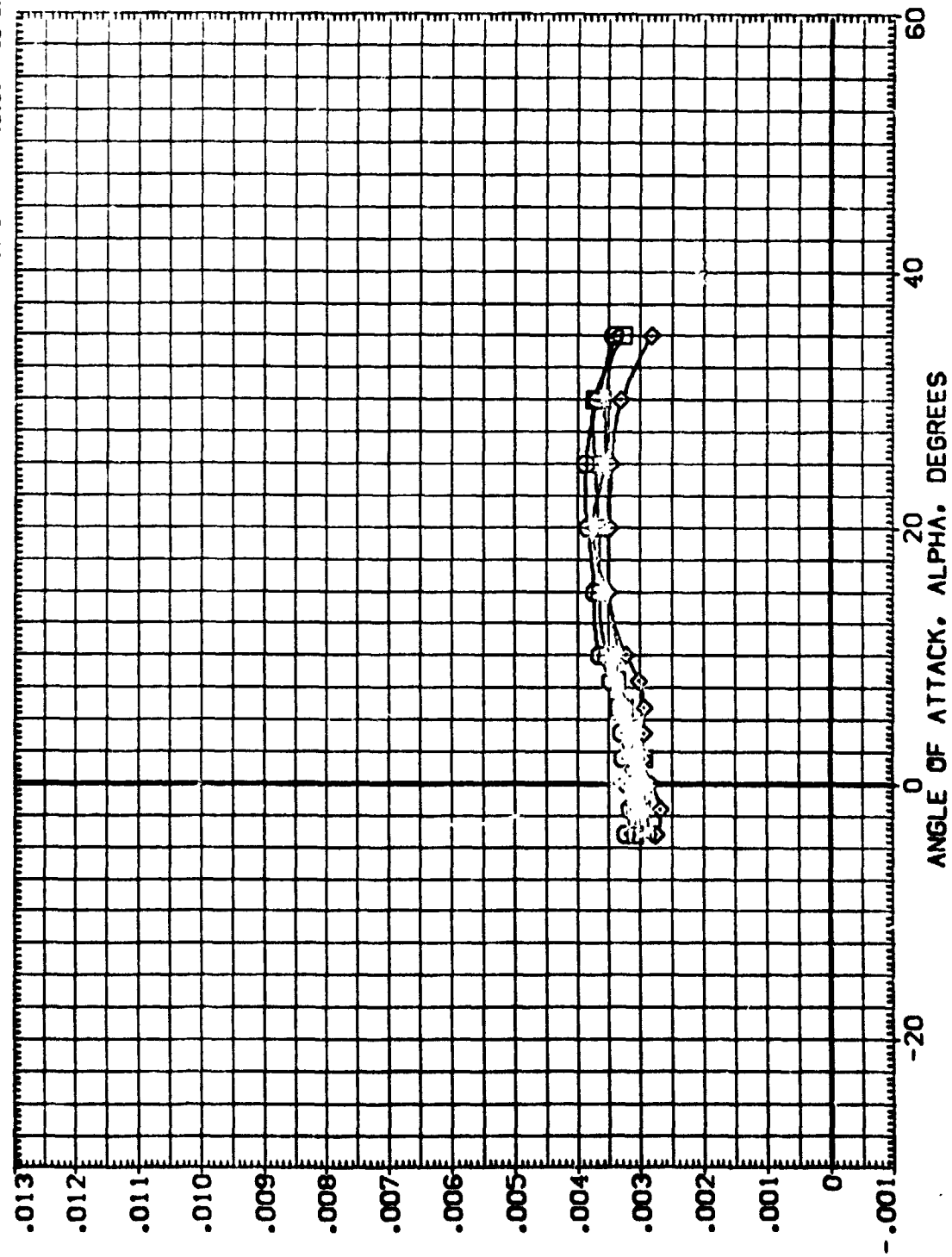


FIG.5 BODY FLAP EFFECTIVENESS

(B)MACH = 3.95

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BOFLAP	SPOBRK	ELEVON	REFERENCE INFORMATION
(F02101)	OA-203 LARE UPVT 1037 140 A/B 003	.000	-11.700	54.920	.000	SREF 7690.0000 SOLE
(F02103)	OA-203 LARE UPVT 1037 140 A/B 003	.000	-16.300	54.920	.000	LREF 1233.0000 INCHES
(F02107)	OA-203 LARE UPVT 1037 140 A/B 003	.000	-11.700	54.920	.000	BREF 913.0000 INCHES
(F02109)	OA-203 LARE UPVT 1037 140 A/B 003	.000	16.300	54.920	.000	XMRP 1075.7000 INCHES
						YMRP .0000 INCHES
						ZMRP 375.0000 INCHES
						SCALE .0150

VERT. TAIL BASE PITCH.-MON. COEFF. (MRP = 67.5 PC BL). CMVAFT

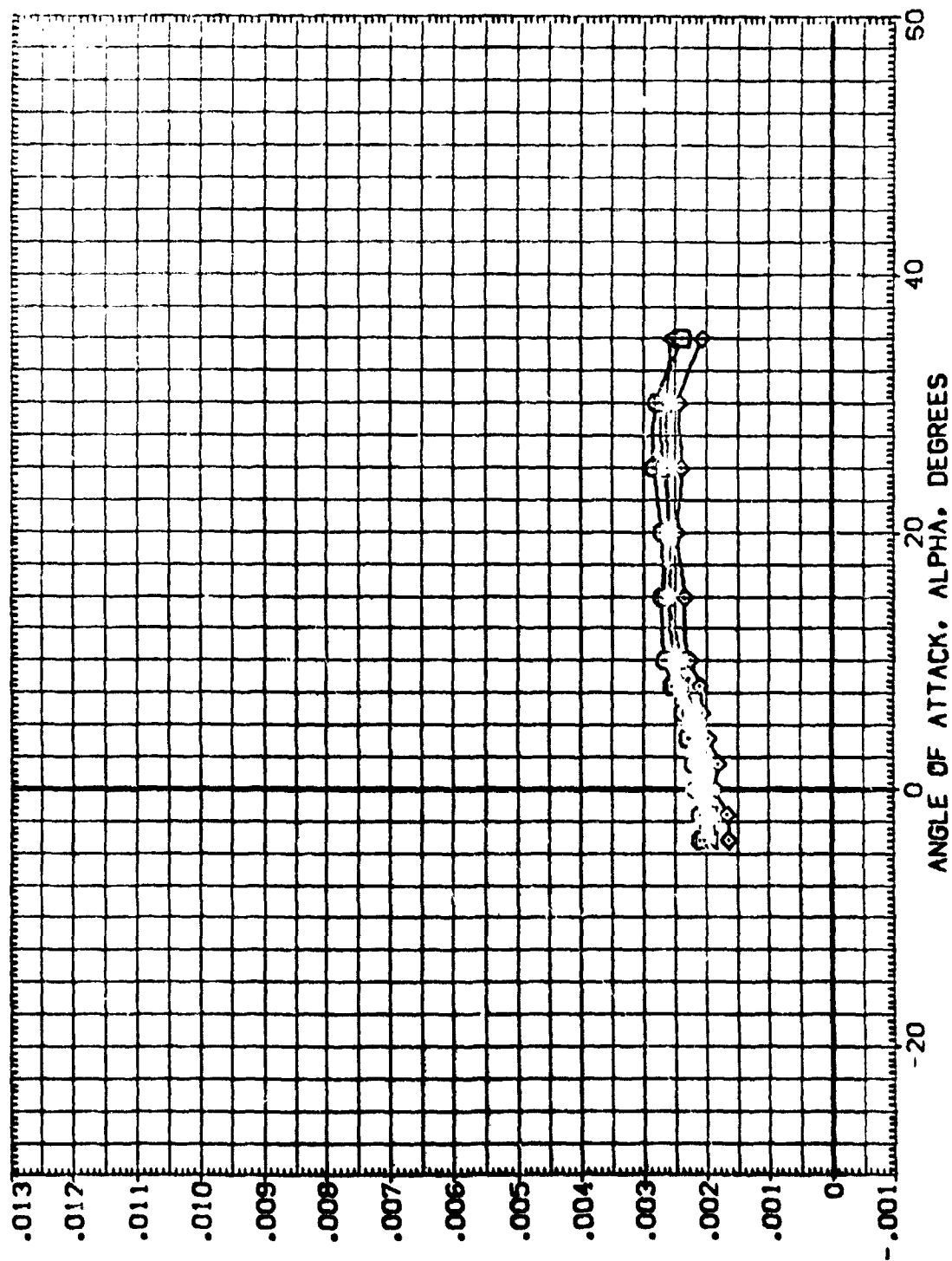


FIG. 5 BODY FLAP EFFECTIVENESS

(C)MACH = 4.63

DATA SET SYMBOL	CONFIGURATION	DESCRIPTION	BETA	BD FLAP	SPD BRK	ELEV	REFERENCE INFORMATION
(F02101)	BA-203	LARC UPVT 1037 140 A/B 038	.000	-11.700	54.920	.000	SREF 2630.0000 SQ.FT.
(F02102)	BA-203	LARC UPVT 1037 140 A/B 038	.000	-11.700	54.920	.000	LREF 1270.3100 INCHES
(F02103)	BA-203	LARC UPVT 1037 140 A/B 038	.000	-11.700	54.920	.000	BREF 935.6100 INCHES
(F02104)	BA-203	LARC UPVT 1037 140 A/B 038	.000	-11.700	54.920	.000	XREF 1075.7000 INCHES
(F02105)	BA-203	LARC UPVT 1037 140 A/B 038	.000	-11.700	54.920	.000	YREF .0000 INCHES
							ZREF 375.0000 INCHES
							SCALE .0150

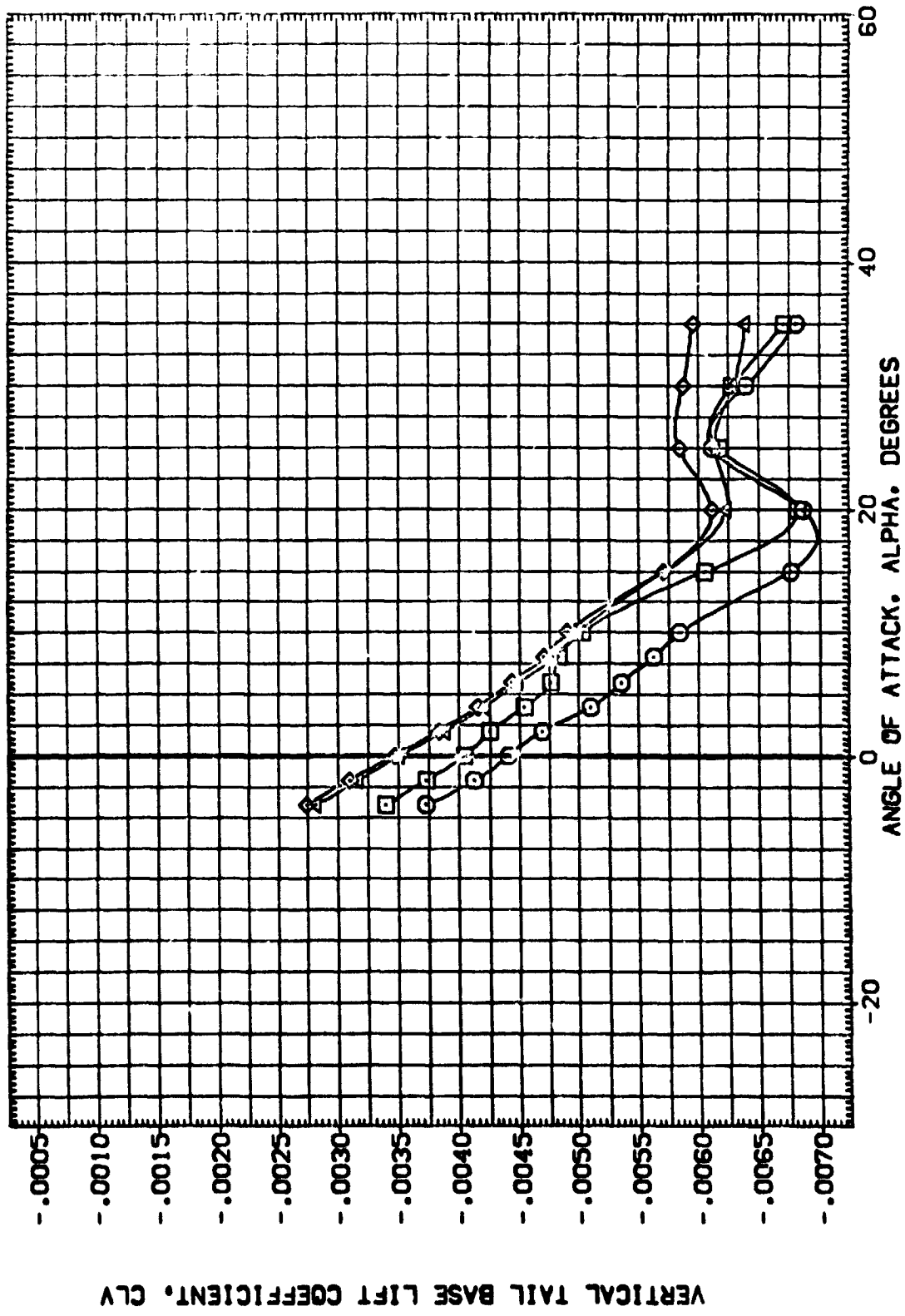


FIG.5 BODY FLAP EFFECTIVENESS

(A)MACH = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BOFLAP	SPOBRK	ELEVON	REFERENCE INFORMATION
(F02101)	BA-203 LARC UPVT 1057 140 A/B 058	.000	-11.700	54.920	.000	SREF 2550.0000 52.51
(F02103)	BA-203 LARC UPVT 1057 140 A/B 053	.000	-16.300	54.920	.000	LREF 1700.0000 16.45
(F02107)	BA-203 LARC UPVT 1057 140 A/B 053	.000	-11.700	54.920	.000	BREF 500.0000 10.45
(F02109)	BA-203 LARC UPVT 1057 140 A/B 058	.000	-16.300	54.920	.000	XREF 1000.0000 17.73
						YREF 370.0000 10.10
						SCALE 10.10

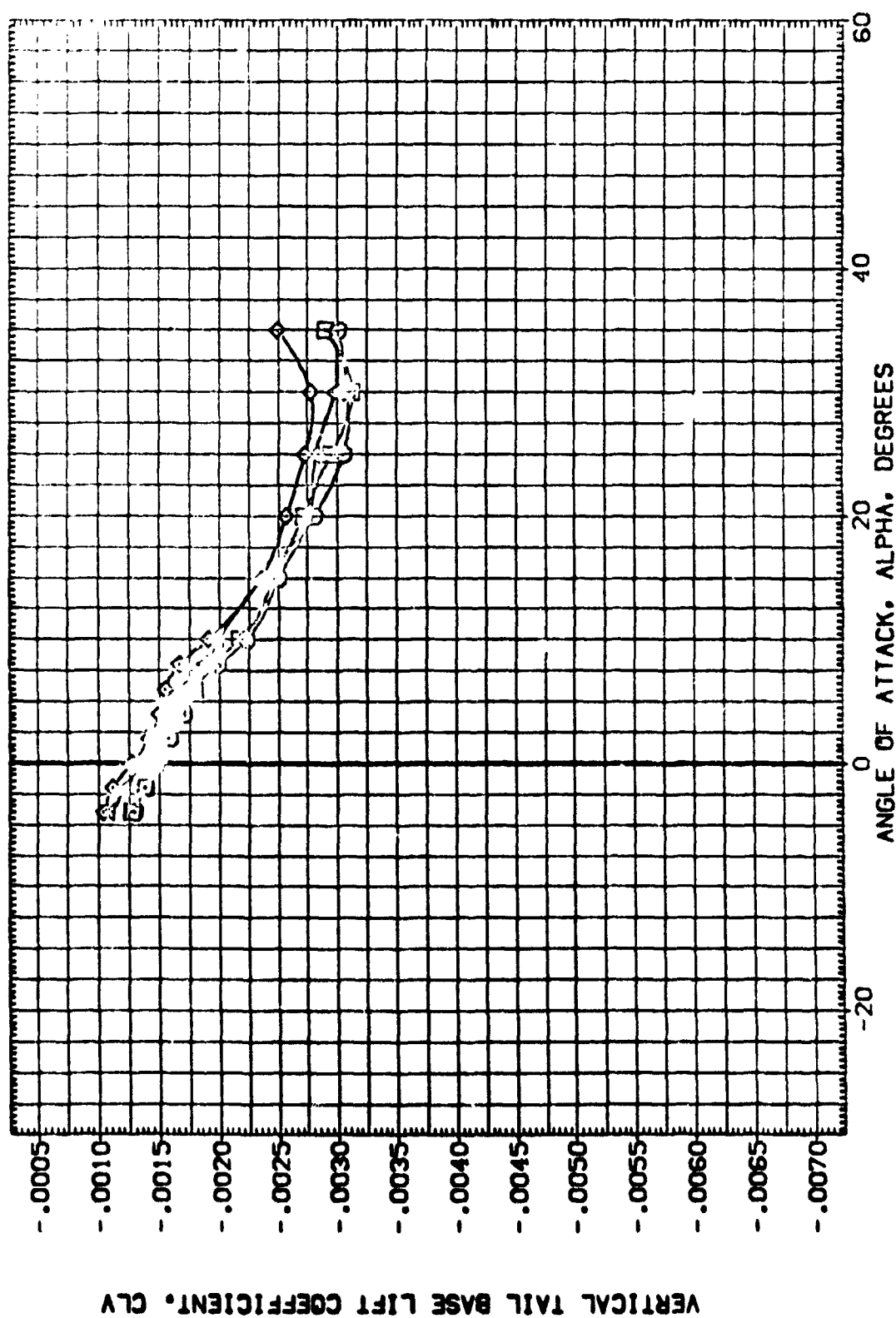


FIG.5 BODY FLAP EFFECTIVENESS

(B)MACH = 3.95

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BOFLAP	SPOBRK	ELEVON	REFERENCE INFORMATION
(F00101)	DA-203 LARC UPVT 1007 140 A/B 000	.000	-11.700	54.920	.000	SREF 2590.0000 50.01
(F02103)	DA-203 LARC UPVT 1007 140 A/B 000	.000	-16.300	54.920	.000	LREF 1200.0000 100.00
(F02107)	DA-203 LARC UPVT 1007 140 A/B 000	.000	-11.700	54.920	.000	BREF 900.0000 100.00
(F02109)	DA-203 LARC UPVT 1007 140 A/B 000	.000	-16.300	54.920	.000	XREF 1070.7000 100.00
						YREF .0000 100.00
						ZREF 375.0000 100.00
						SCALE .0150

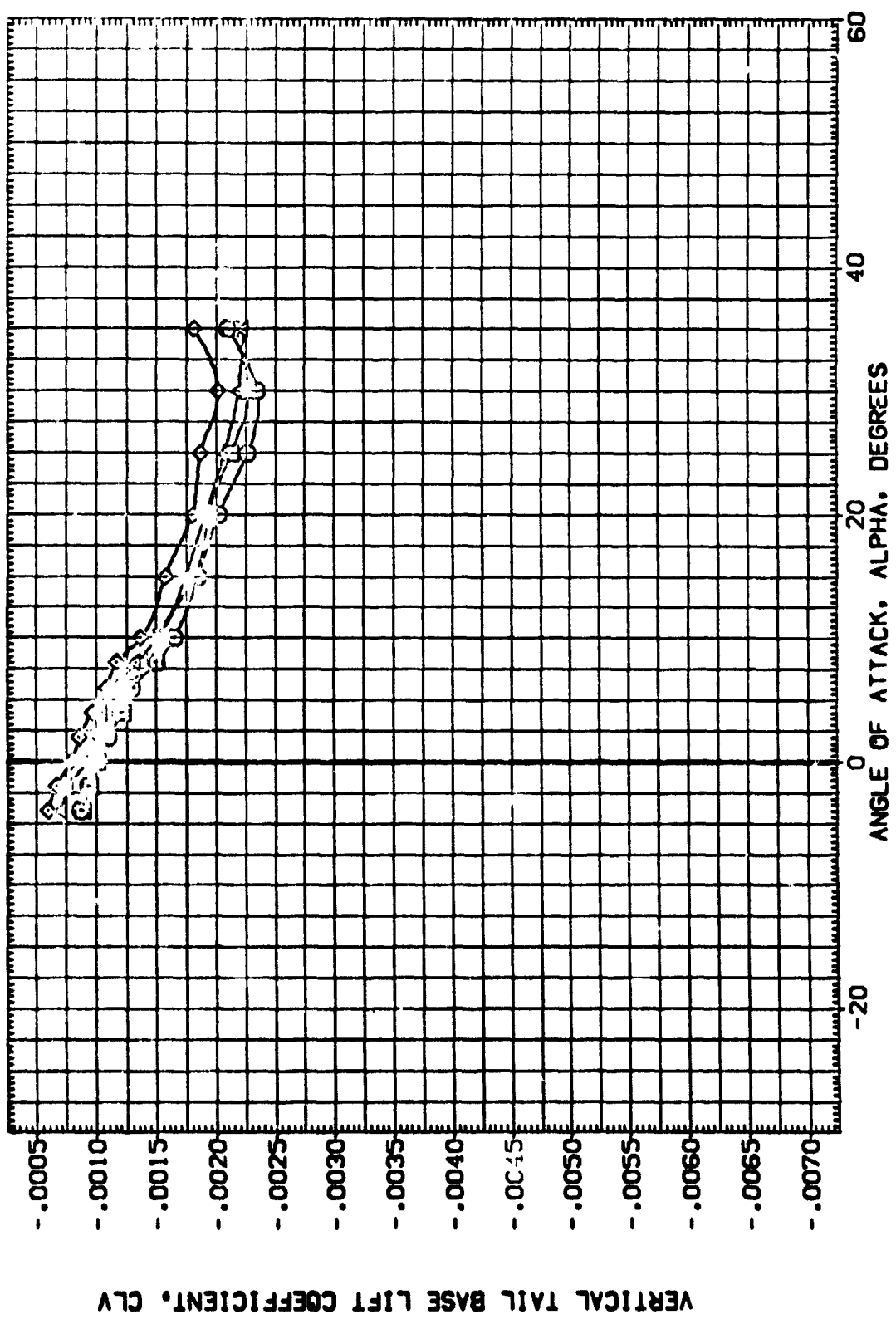


FIG.5 BODY FLAP EFFECTIVENESS

(C)MACH = 4.63

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BOFLAP	SPOBRK	ELEVON	REFERENCE INFORMATION
(002101)	OA-203 LARC UPVT 1077 140 A/B 078	.000	-11.700	54.920	.000	SREF 2650.0000 50.FT. INCHES
(002103)	OA-203 LARC UPVT 1037 140 A/B 073	.000	16.300	54.920	.000	LREF 1230.0000 100.FT. INCHES
(002107)	OA-203 LARC UPVT 1037 140 A/B 073	.000	-11.700	54.920	.000	BREF 935.0000 100.FT. INCHES
(002109)	OA-203 LARC UPVT 1057 140 A/B 073	.000	16.300	54.920	.000	XMRP 1075.0000 100.FT. INCHES
						YMRP 375.0000 100.FT. INCHES
						SCALE .0150

TOTAL NORMAL-FORCE COEFFICIENT(CN + CNV), CNT

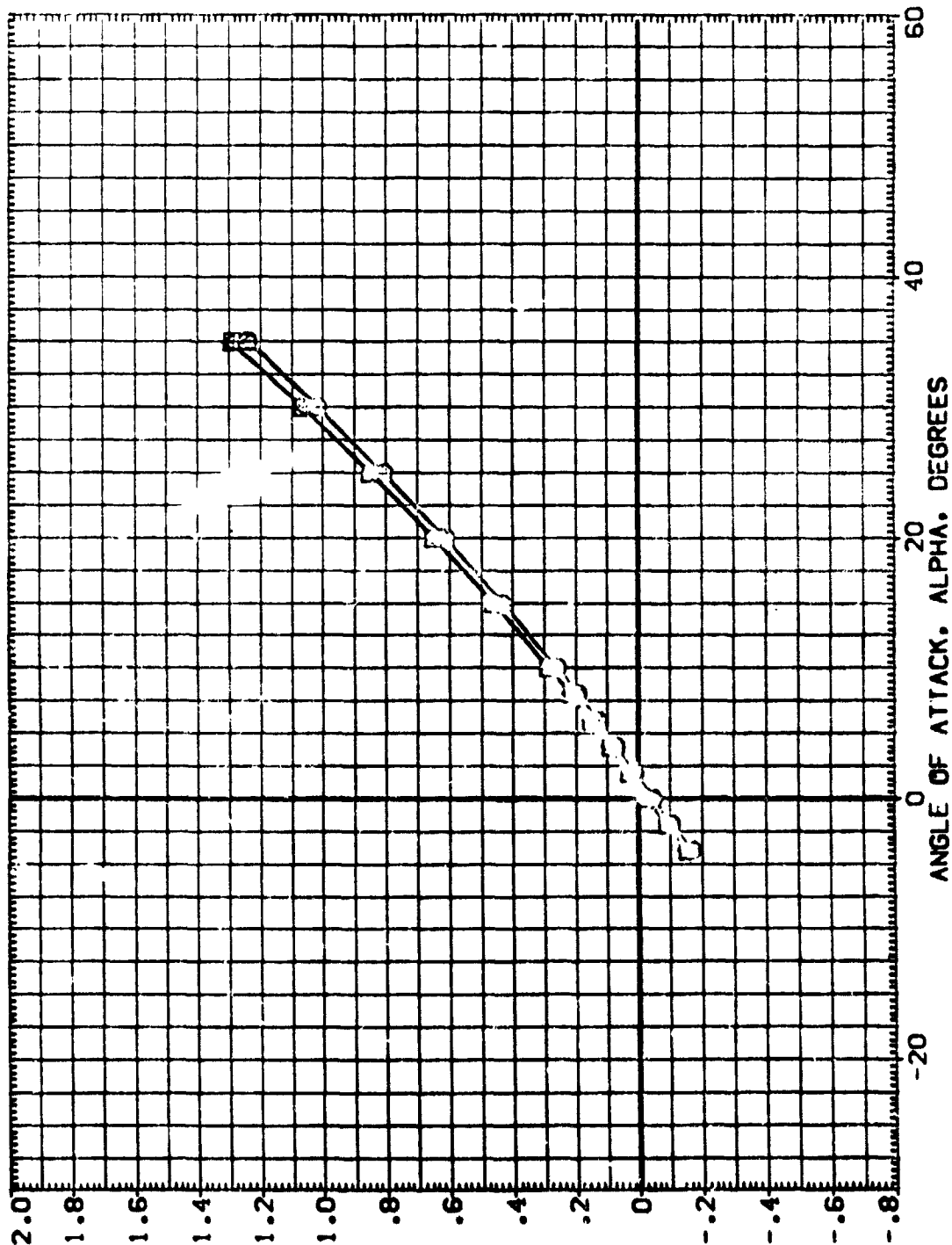


FIG.5 BODY FLAP EFFECTIVENESS

(A)MACH = 2.50



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BD FLAP	SPD BRK	ELEVON	REFERENCE INFORMATION
(002101)	OA-208 LARC UPVT 1037 140 A/B 578	.000	-11.700	54.520	.000	SREF 2690.0000 50.FT.
(002103)	OA-203 LARC UPVT 1037 140 A/B 578	.000	16.300	54.520	.000	LREF 1200.3000 INCHES
(002107)	OA-208 LARC UPVT 1037 140 A/B 578	.000	-11.700	54.520	.000	BREF 936.0000 INCHES
(002108)	OA-208 LARC UPVT 1037 140 A/B 578	.000	16.300	54.520	.000	XREF 1073.7000 INCHES
						YREF 375.0000 INCHES
						ZREF .0150 SCALE

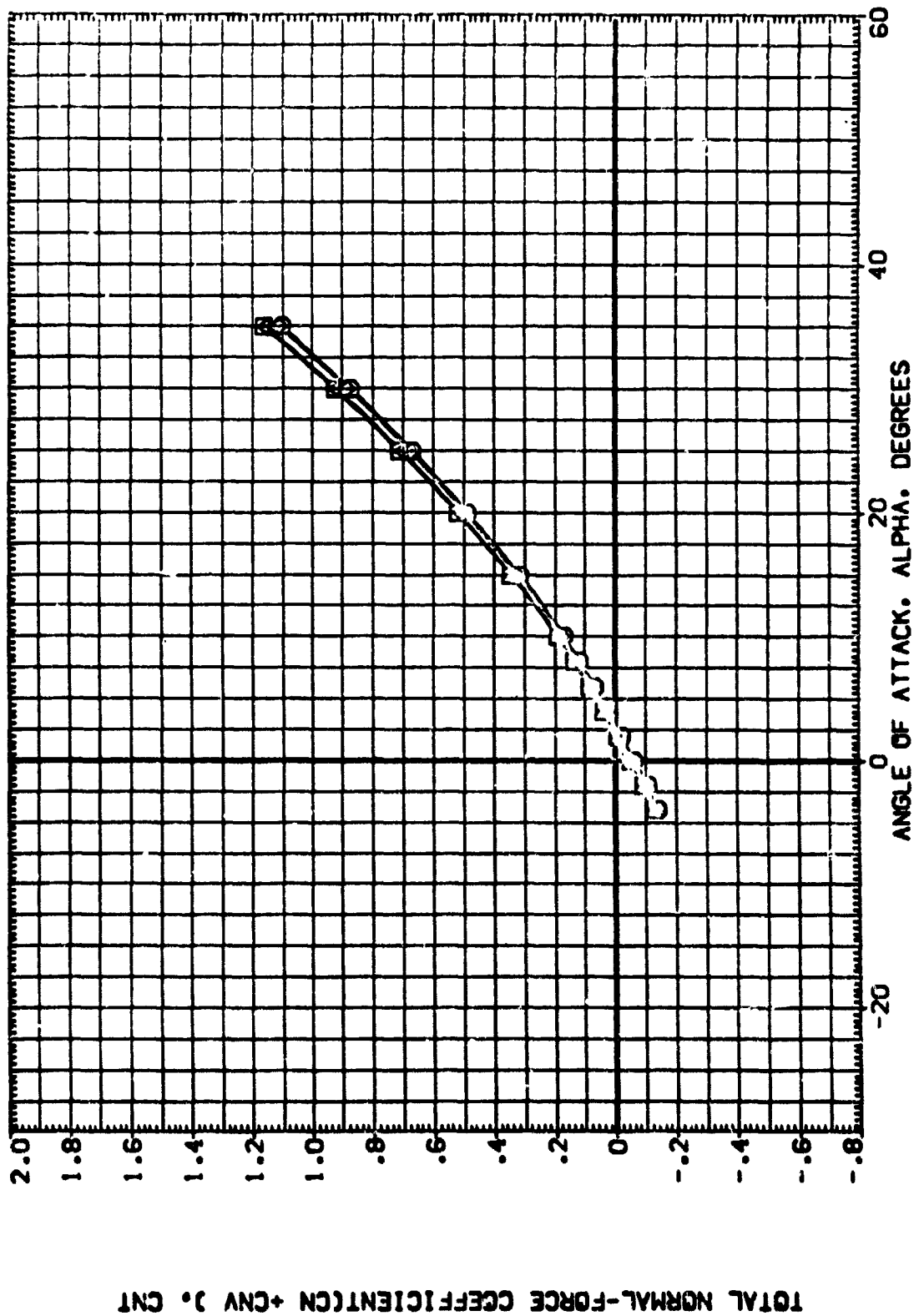


FIG.5 BODY FLAP EFFECTIVENESS

(8)MACH = 3.95

DATA SET SPEED. CONFIGURATION DESCRIPTION

DATA SET SPEED	CONFIGURATION DESCRIPTION	BETA	REFLAP	SPURK	ELEVON	REFERENCE INFORMATION
000001	0A-208 LANE UPVT 1007 140 A/B 000	.000	-11.700	54.500	.000	REF 2690.0000
000002	0A-208 LANE UPVT 1007 140 A/B 000	.000	-11.700	54.500	.000	REF 1290.3000
000003	0A-208 LANE UPVT 1007 140 A/B 000	.000	-11.700	54.500	.000	REF 505.6000
000004	0A-208 LANE UPVT 1007 140 A/B 000	.000	-11.700	54.500	.000	REF 1076.7000
000005	0A-208 LANE UPVT 1007 140 A/B 000	.000	-11.700	54.500	.000	REF 375.0000
000006	0A-208 LANE UPVT 1007 140 A/B 000	.000	-11.700	54.500	.000	REF 375.0150

90 FT. INCHES
1290.3000 INCHES
505.6000 INCHES
1076.7000 INCHES
375.0000 INCHES
375.0150 INCHES

TOTAL PITCH.-NON. COEFF.(MRP = 65.0 PC BL) CLN +CHVFD + CMTFD

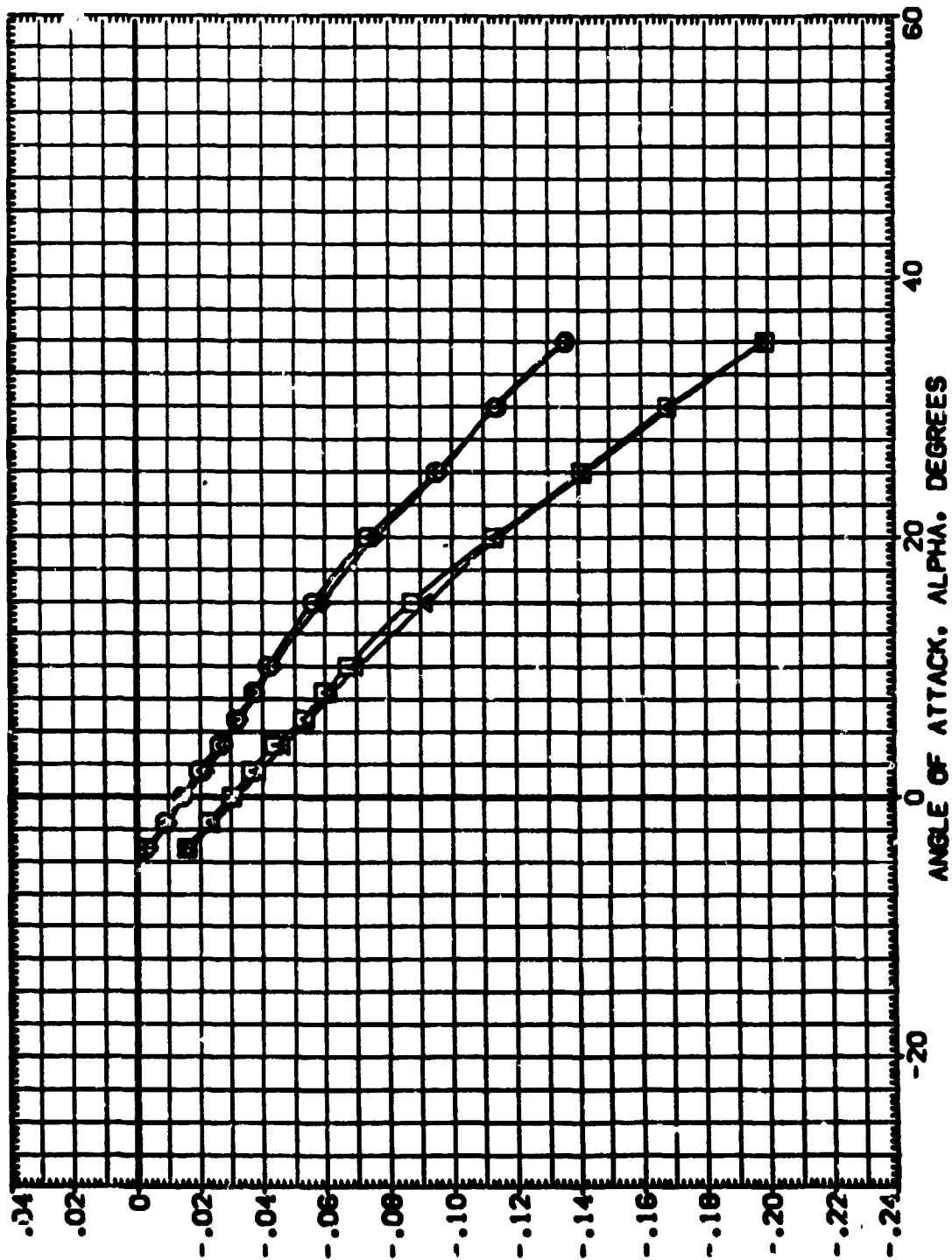


FIG.5 BODY FLAP EFFECTIVENESS

(A)MACH = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BDFLAP	SPDRBK	ELEVON	REFERENCE INFORMATION
{002101}	DA-208 LARC UPVT 1087 140 A/B 098	.000	-11.700	54.920	.000	SREF 2890.0000 50.FT.
{002103}	DA-208 LARC UPVT 1087 140 A/B 098	.000	-16.300	54.920	.000	LREF 1290.3000 INCHES
{002107}	DA-208 LARC UPVT 1087 140 A/B 098	.000	-11.700	54.920	.000	BREF 936.6900 INCHES
{002109}	DA-208 LARC UPVT 1087 140 A/B 098	.000	-16.300	54.920	.000	XMRP 1076.7000 INCHES
						YMRP .0000 INCHES
						ZMRP .0000 INCHES
						SCALE .0150

TOTAL PITCH.-MOM. COEFF.(MRP = 65.0 PC BL) CLM +CMVFD + CMTFVD

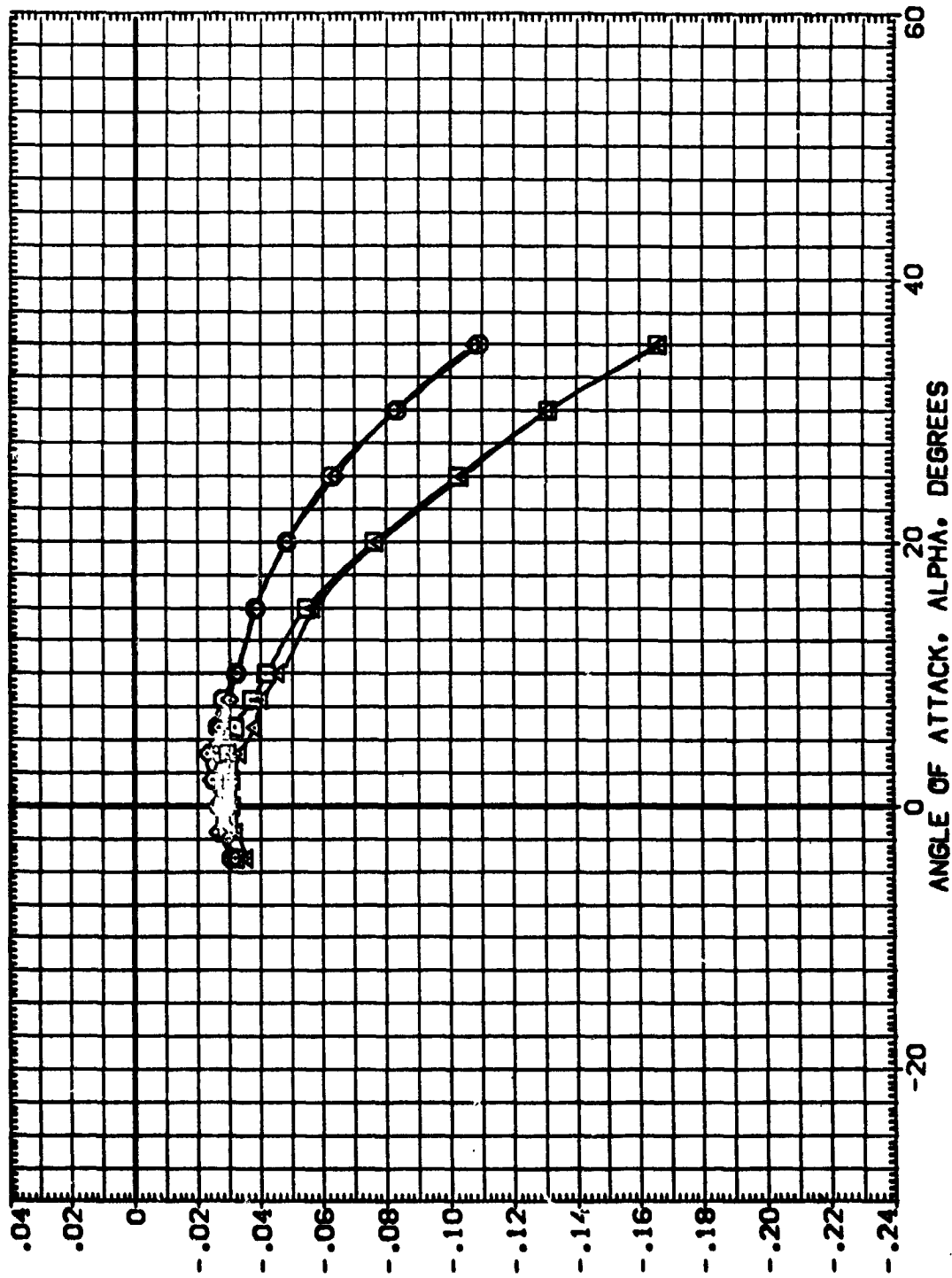


FIG.5 BODY FLAP EFFECTIVENESS

(C)MACH = 4.63

DATA SET SYMBOL CONFIGURATION DESCRIPTION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BD FLAP	SPDRK	ELEVON	REFERENCE INFORMATION
002101	0A-208 LARC UPVT 1087 140 A/B 088	.000	-11.700	54.520	.000	SREF 2690.0000 SQ.FT.
002102	0A-208 LARC UPVT 1087 140 A/B 088	.000	-16.300	54.520	.000	LREF 1290.3000 INCHES
002103	0A-208 LARC UPVT 1087 140 A/B 088	.000	-11.700	54.520	.000	BREF 936.6800 INCHES
002104	0A-208 LARC UPVT 1087 140 A/B 088	.000	16.300	54.520	.000	YMRP 1076.7000 INCHES
						ZMRP .0000 INCHES
						SCALE .0150

TOTAL PITCH.-MOM. COEFF. (MRP = 67.5 PC BL) CLMAFT + CMVAFT + CMTAFT

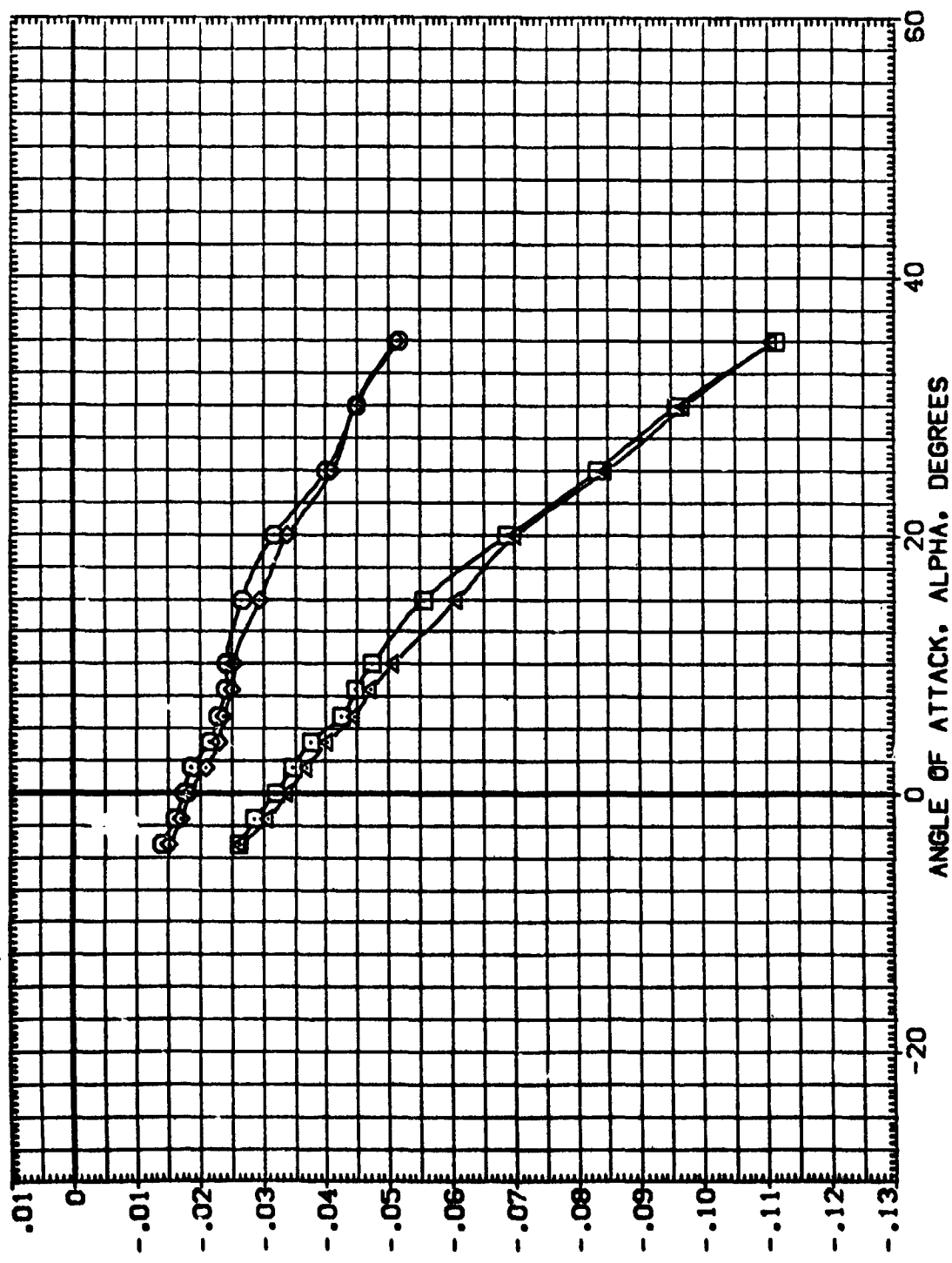


FIG. 5 BODY FLAP EFFECTIVENESS

(A)MACH = 2.50



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BL FLAP	SPDRK	ELEVON	REFERENCE INFORMATION
(002101)	DA-208 LARC UPVT 1097 140 A/B DRB	.000	-11.700	54.920	.000	SREF 2690.0000 SQ.FT.
(002102)	DA-208 LARC UPVT 1097 140 A/B DRB	.000	-11.700	54.920	.000	LREF 1250.3000 INCHES
(002107)	DA-208 LARC UPVT 1097 140 A/B DRB	.000	-11.700	54.920	.000	BREF 936.5000 INCHES
(002108)	DA-208 LARC UPVT 1097 140 A/B DRB	.000	16.300	54.920	.000	XMRP 1076.7000 INCHES
						YMRP .0000 INCHES
						ZMRP 375.0000 INCHES
						SCALE .0150

TOTAL PITCH.-MOM. COEFF.(MRP = 67.5 PC BL) CLMAFT + CMVAFT + CMTAFT

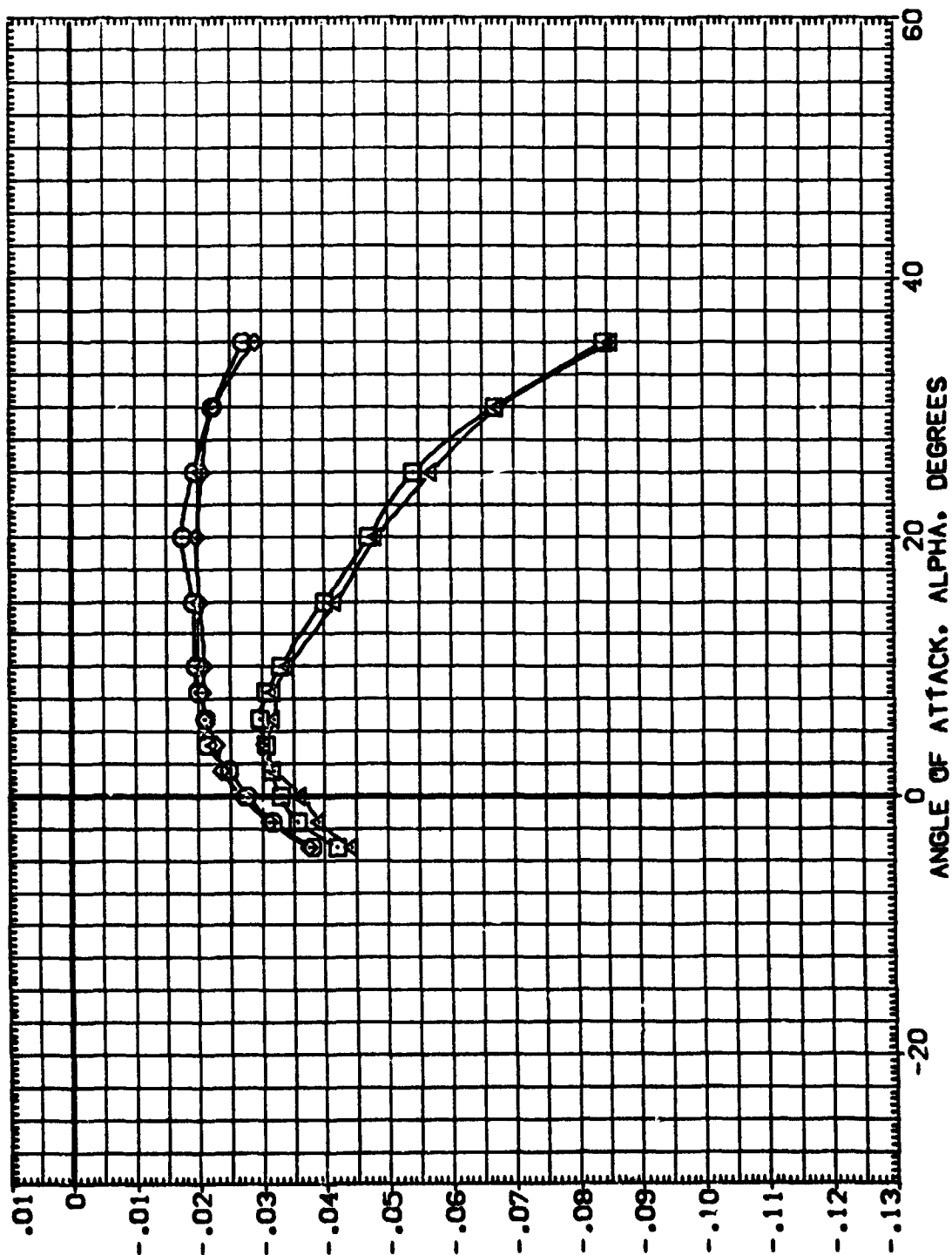


FIG.5 BODY FLAP EFFECTIVENESS

(B)MACH = 3.95

DATA SET SPEED. CONFIGURATION DESCRIPTION

DATA SET	SPEED	CONFIGURATION	DESCRIPTION	BETA	BOFLAP	SPDRK	ELEVON	REFERENCE INFORMATION	SD.FT.
(002101)	0	0A-208	LARC UPVT 1057 140 A/B DBB	.000	-11.700	54.920	.000	SREF	2680.0000
(002103)	0	0A-208	LARC UPVT 1057 140 A/B DBB	.000	16.300	54.920	.000	LREF	1290.3000
(002107)	0	0A-208	LARC UPVT 1057 140 A/B DBB	.000	-11.700	54.920	.000	BREF	923.6300
(002108)	0	0A-208	LARC UPVT 1057 140 A/B DBB	.000	16.300	54.920	.000	XMRP	1078.7000
								YMRP	.0000
								ZMRP	375.0000
								SCALE	.0150

TOTAL PITCH.-MOM. COEFF. (MRP = 67.5 PC BL) CLMAFT + CMVAFT + CMTAFT

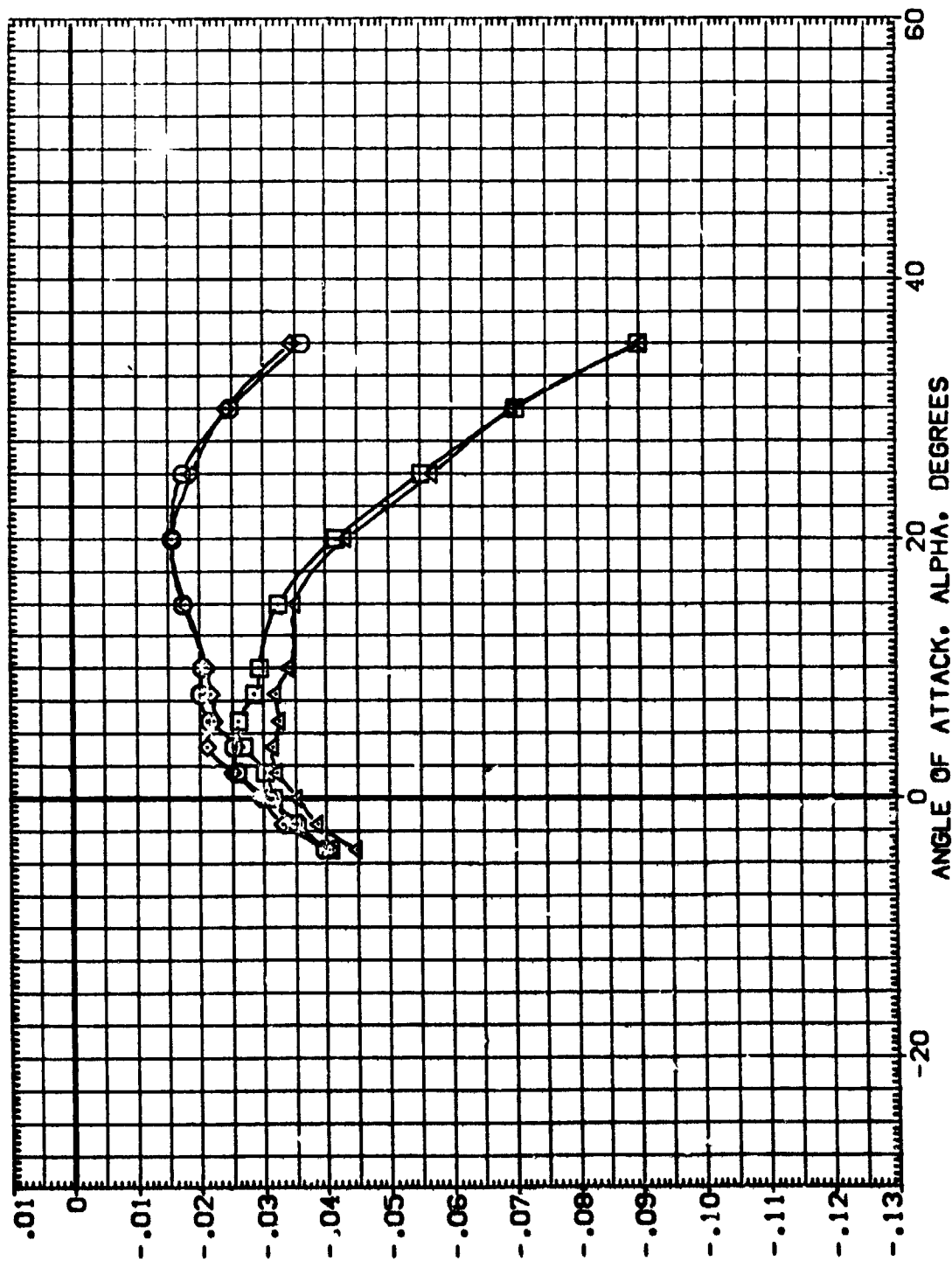


FIG. 5 BODY FLAP EFFECTIVENESS

(C)MACH = 4.63



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BOFLAP	SPDRK	ELEVON	REFERENCE INFORMATION
(002101)	0A-208 LARC UPVT 1057 140 A/B DBB +QUIN STING	.000	-11.700	54.920	.000	SREF 2690.0000 SO.FT.
(002102)	0A-208 LARC UPVT 1057 140 A/B DBB +QUIN STING	.000	-16.300	54.920	.000	LREF 1290.3000 INCHES
(002107)	0A-208 LARC UPVT 1057 140 A/B DBB	.000	-11.700	54.920	.000	BREF 936.6300 INCHES
(002108)	0A-208 LARC UPVT 1057 140 A/B DBB	.000	-16.300	54.920	.000	XMRP 1076.7000 INCHES
						YMRP .0000 INCHES
						ZMRP 375.0000 INCHES
						SCALE .0150 SCALE

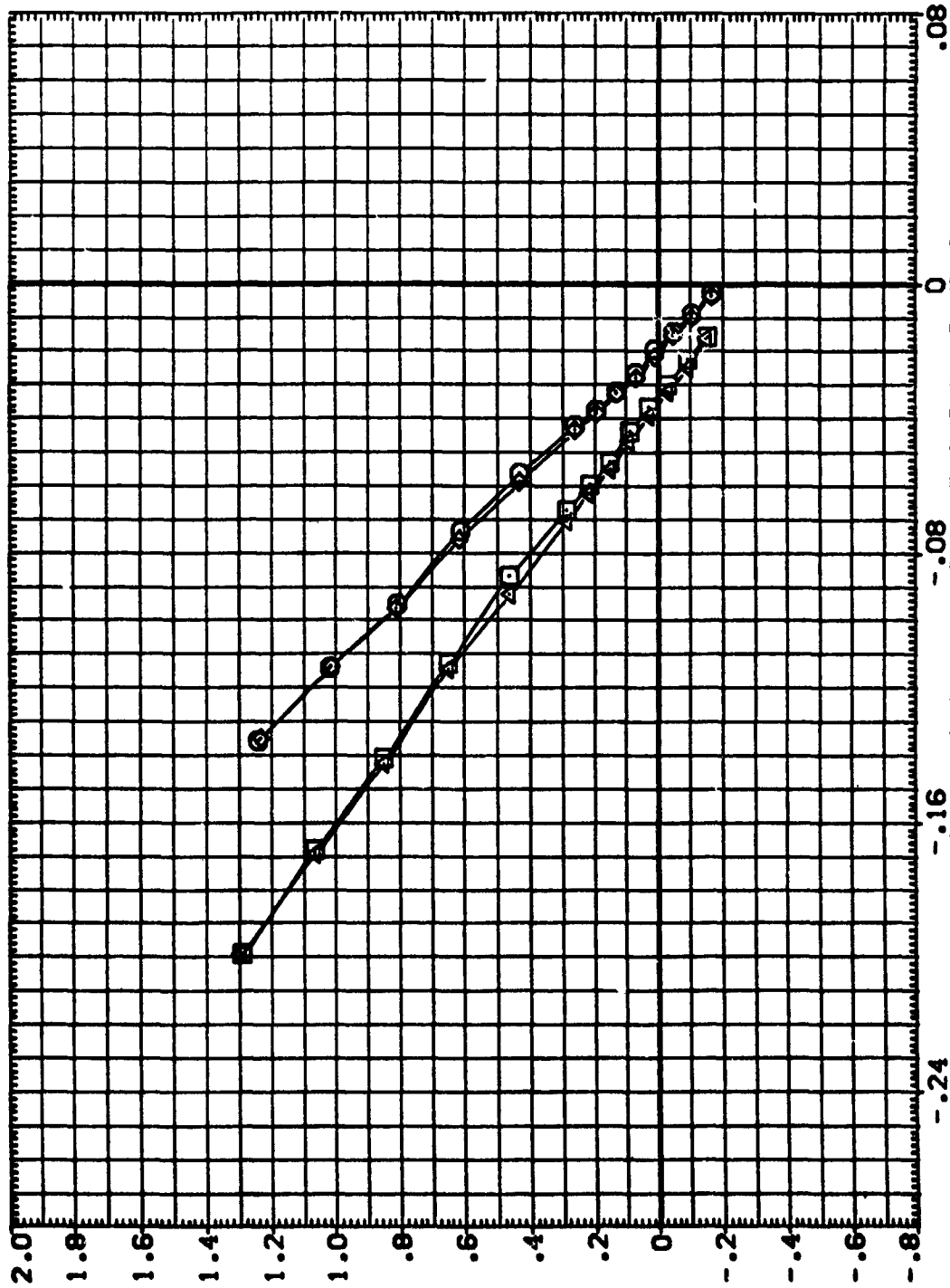


FIG.5 BODY FLAP EFFECTIVENESS

(A)MACH = 2.50

DATA SET SYMBOL CONFIGURATION DESCRIPTION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BOFLAP	SPDRK	ELEVON	REFERENCE INFORMATION
002101	0A-208 LARC UPVT 1087 140 A/B 088 +DUMMY STING	.000	-11.700	54.920	.000	SREF 2690.0000 SQ.FT.
002102	0A-208 LARC UPVT 1087 140 A/B 088 +DUMMY STING	.000	-11.700	54.920	.000	LREF 1290.3000 INCHES
002103	0A-208 LARC UPVT 1087 140 A/B 088 +DUMMY STING	.000	-11.700	54.920	.000	BREF 936.6200 INCHES
002104	0A-208 LARC UPVT 1087 140 A/B 088 +DUMMY STING	.000	-11.700	54.920	.000	YMRP 1076.7000 INCHES
002105	0A-208 LARC UPVT 1087 140 A/B 088 +DUMMY STING	.000	-11.700	54.920	.000	ZMRP 375.0000 INCHES
						SCALE .0150

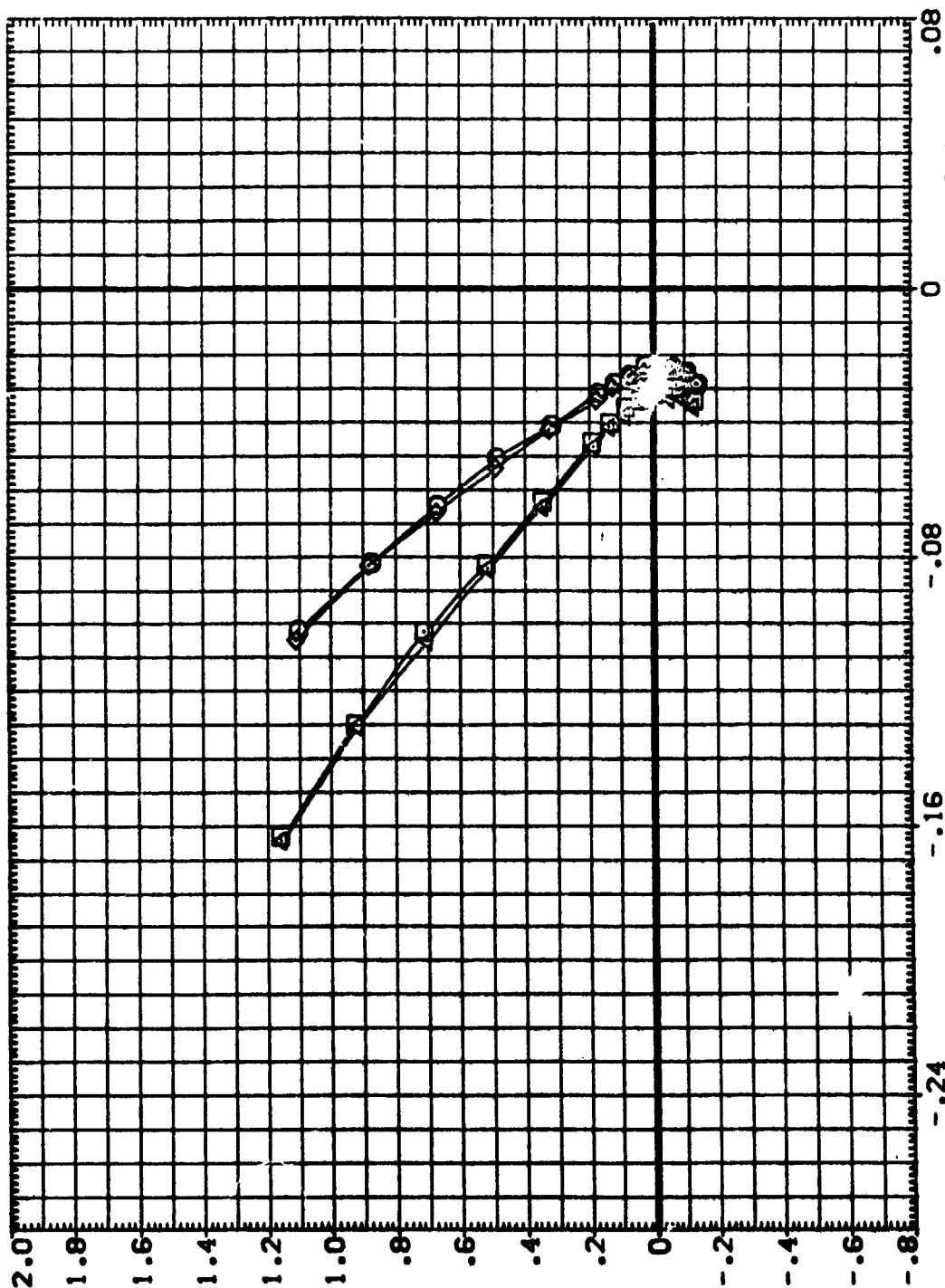


FIG.5 BODY FLAP EFFECTIVENESS

(B)MACH = 3.95

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BD FLAP	SPD BRK	ELEVON	REFERENCE INFORMATION
(002101)	BA-208 LARC UPVT 1057 140 A/B 0/8	.000	-11.700	54.520	.000	SREF 2530.0000 SQ.FT.
(002103)	BA-208 LARC UPVT 1057 140 A/B 0/8	.000	-16.700	54.520	.000	LREF 1250.3000 INCHES
(002107)	BA-208 LARC UPVT 1057 140 A/B 0/8	.000	-11.700	54.520	.000	BREF 535.6800 INCHES
(002109)	BA-208 LARC UPVT 1057 140 A/B 0/8	.000	16.300	54.520	.000	XMRP 1076.7000 INCHES
						YMRP .0000 INCHES
						ZMRP .0000 INCHES
						SCALE .0150

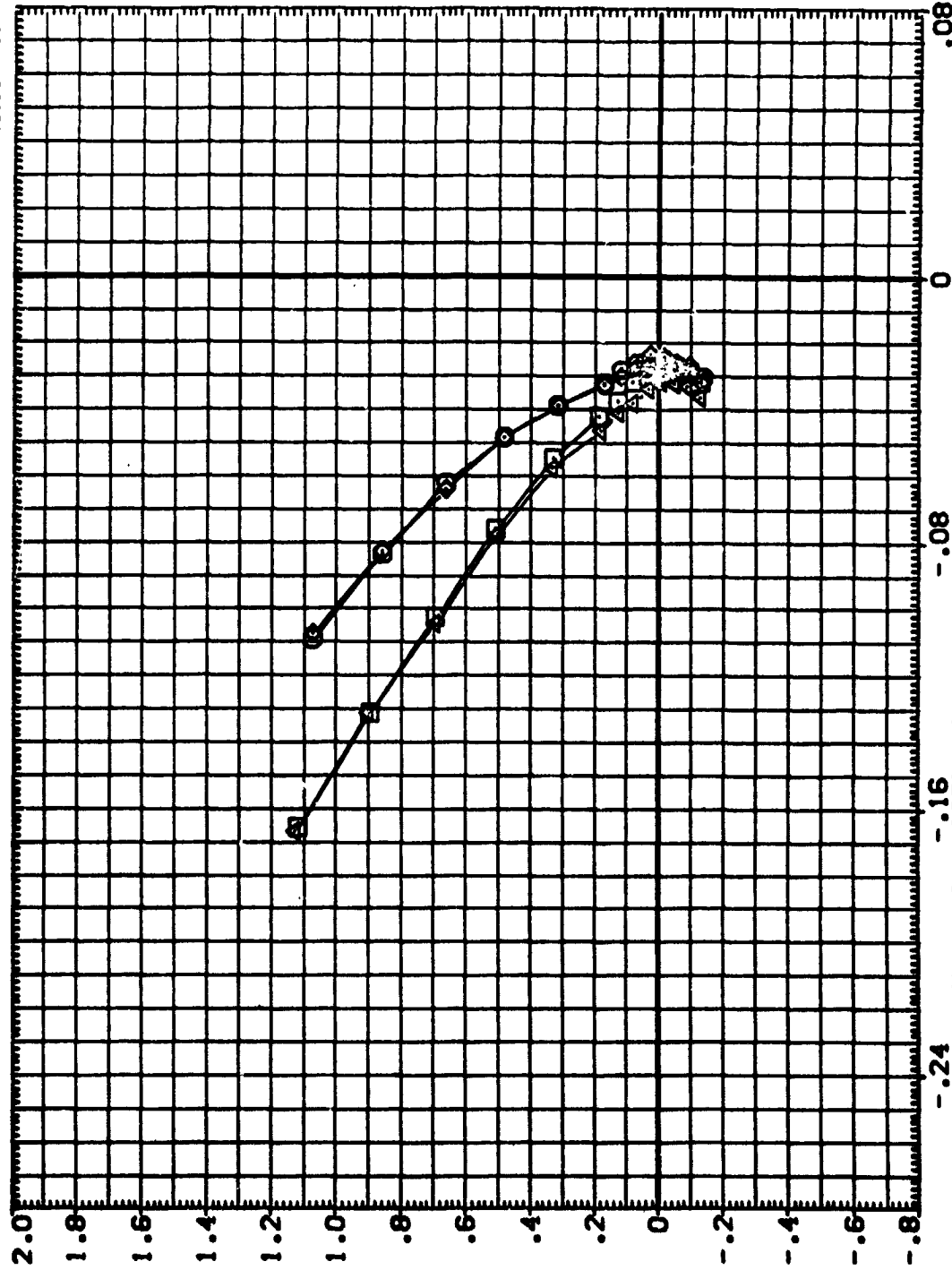


FIG. 6.5 BODY FLAP EFFECTIVENESS
(CJ)MACH = 4.63

DATA SET SPEED. CONFIGURATION DESCRIPTION

DATA SET	SPEED	CONFIGURATION	DESCRIPTION	BETA	BD FLAP	SPD BRK	ELEVON	REFERENCE INFORMATION
(002101)	100	0A-208	LARC UPVT 1007 140 A/B DBB	.000	-11.700	54.520	.000	SREF 2650.0000 SQ.FT.
(002102)	100	0A-208	LARC UPVT 1007 140 A/B DBB	.000	-16.300	54.520	.000	LREF 1230.3000 INCHES
(002103)	100	0A-208	LARC UPVT 1007 140 A/B DBB	.000	-11.700	54.520	.000	BREF 536.6300 INCHES
(002104)	100	0A-208	LARC UPVT 1007 140 A/B DBB	.000	-16.300	54.520	.000	YMRP 1076.7000 INCHES
(002105)	100	0A-208	LARC UPVT 1007 140 A/B DBB	.000	-16.300	54.520	.000	ZMRP 375.0000 INCHES
(002106)	100	0A-208	LARC UPVT 1007 140 A/B DBB	.000	-16.300	54.520	.000	SCALE .0150

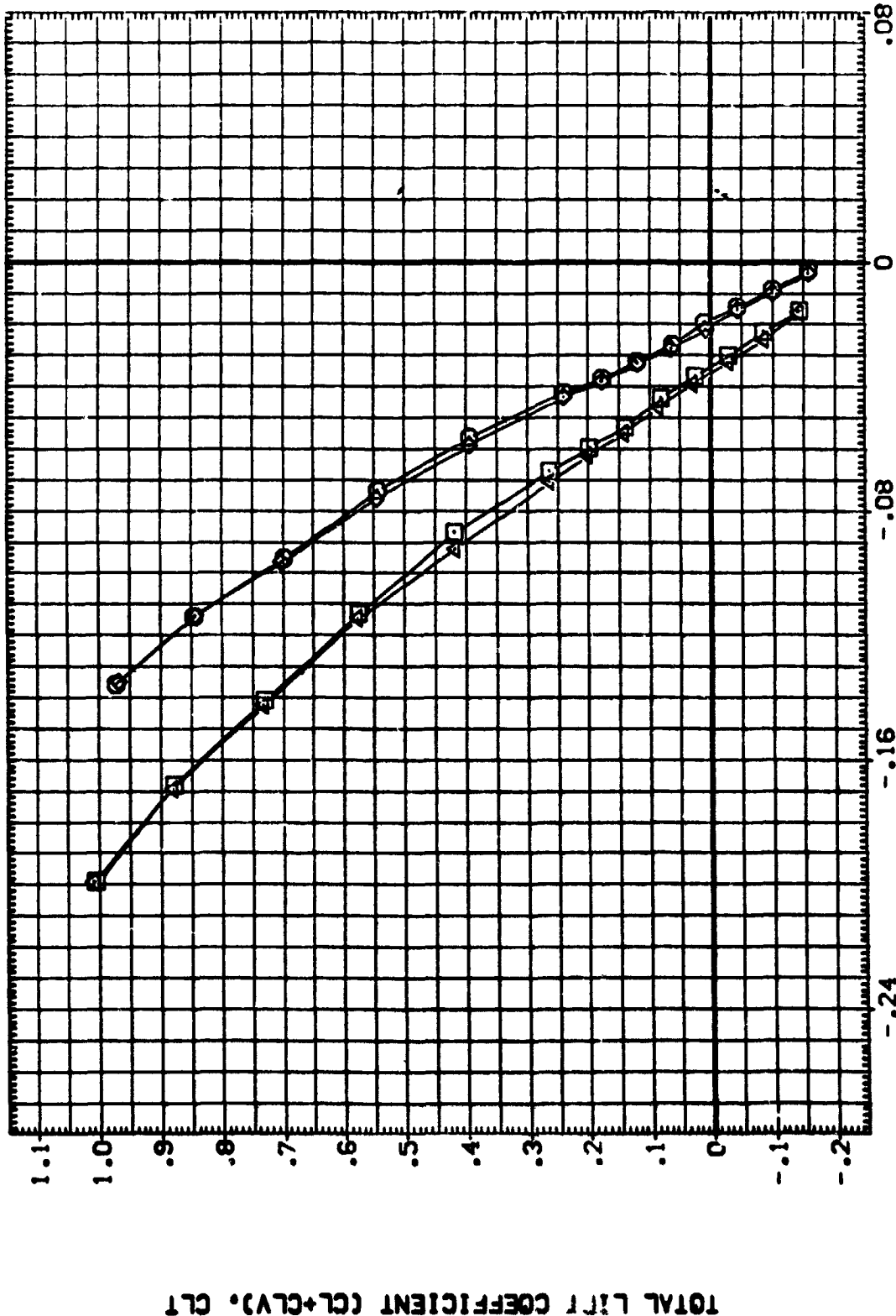


FIG. 16.5 BODY FLAP EFFECTIVENESS

(A) MACH = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BD FLAP	SPDWRK	ELEVON	REFERENCE INFORMATION
{002101}	0A-208 LANC UPVT 1057 140 A/B DBS +DUPPY STING	.000	-11.700	54.520	.000	SREF 2630.0000 SO.FT.
{002103}	0A-208 LANC UPVT 1057 140 A/B DBS +DUPPY STING	.000	-16.300	54.520	.000	LREF 1250.3000 INC-ES
{002107}	0A-208 LANC UPVT 1057 140 A/B DBS	.000	-11.700	54.520	.000	BREF 536.8000 INC-ES
{002108}	0A-208 LANC UPVT 1057 140 A/B DBS	.000	-16.300	54.520	.000	XMRP 1076.7000 INC-ES
						YMRP .0000 INC-ES
						ZMRP 375.0000 INC-ES
						SCALE .0150 SCALE

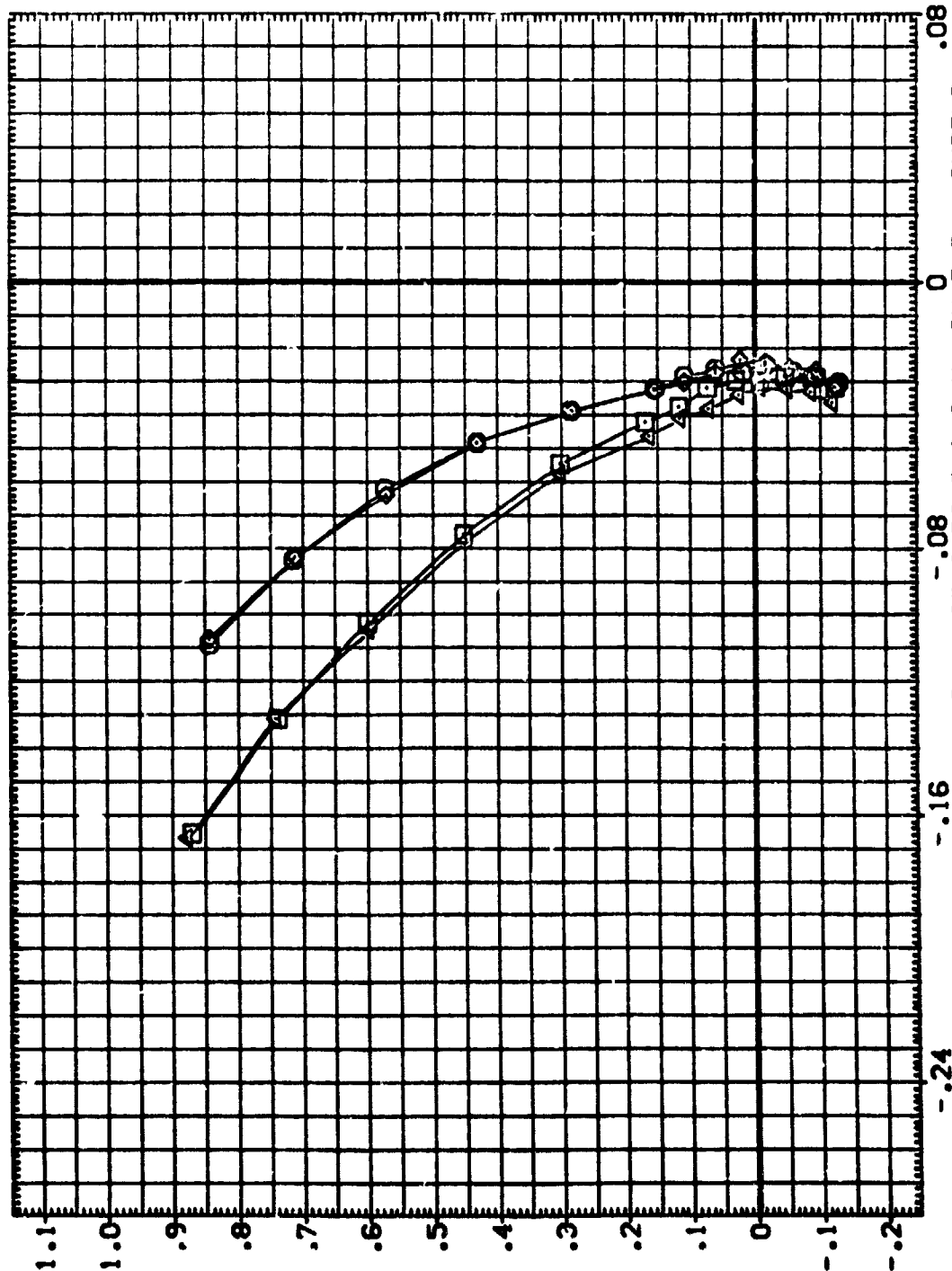


FIG.5 BODY FLAP EFFECTIVENESS

(C)MACH = 4.63

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BD FLAP	SPD (K)	ELEVON	REFERENCE INFORMATION
{002101}	BA-208 LANC UPVT 1087 140 A/B 088	.000	-11.700	54.820	.000	REF 2080.0000 SQ.FT.
{002102}	BA-208 LANC UPVT 1087 140 A/B 088	.000	-11.700	54.820	.000	REF 1750.3000 INCHES
{002107}	BA-208 LANC UPVT 1087 140 A/B 088	.000	-11.700	54.820	.000	REF 536.6300 INCHES
{002108}	BA-208 LANC UPVT 1087 140 A/B 088	.000	-11.700	54.820	.000	REF 1776.7000 INCHES
						YARP 375.0000 INCHES
						SCALE .0150

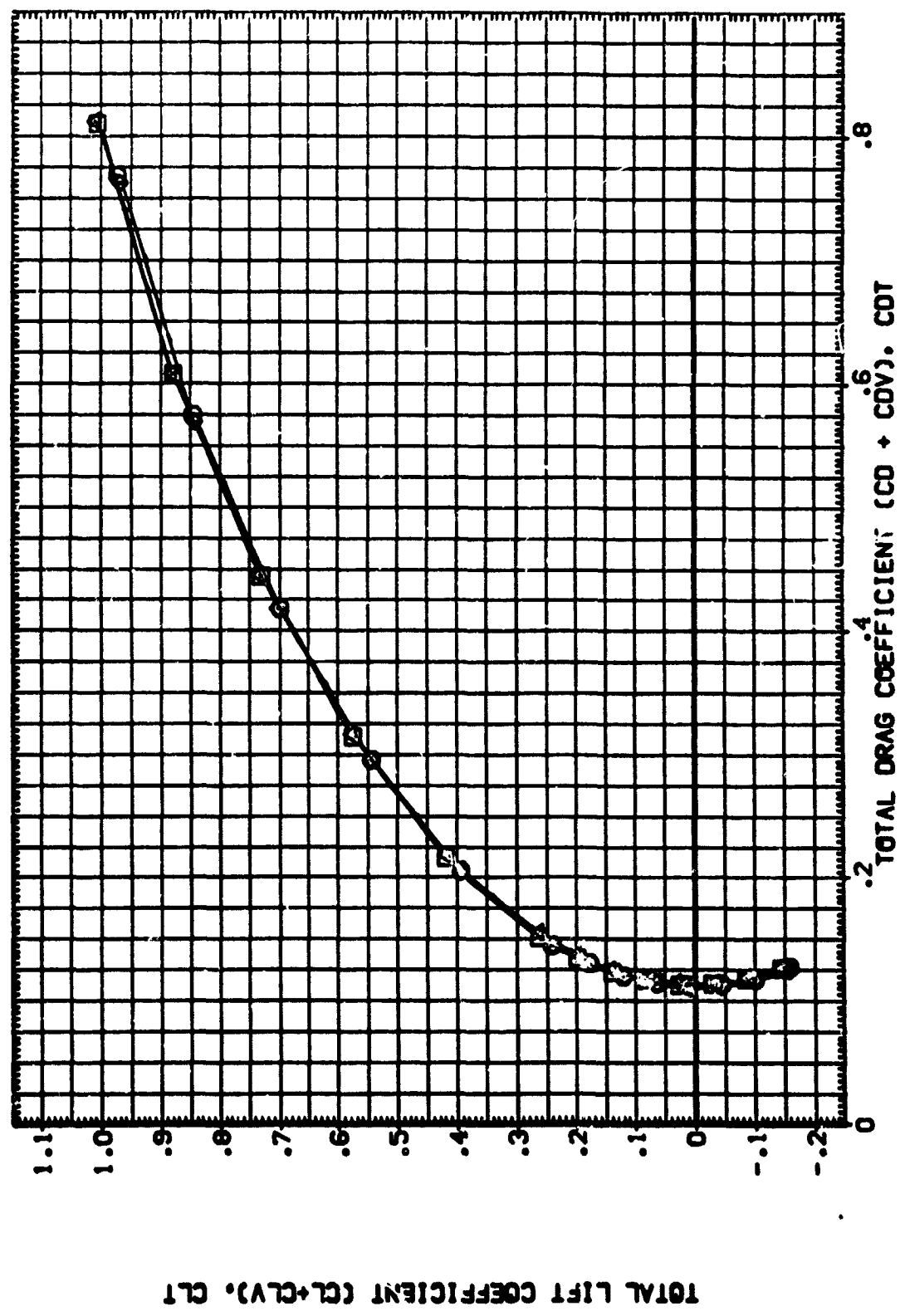


FIG.5 BODY FLAP EFFECTIVENESS
(MACH = 2.50)

DATA SET	SPEED	CONFIGURATION	DESCRIPTION	BETA	BD FLAP	SPDWRK	ELEVON	REFERENCE INFORMATION
(002101)	140	UPVT	1087	140	A/B	0RB	+QUARTY STING	SRF 2630.0000 SO.FT.
(002102)	140	UPVT	1087	140	A/B	0RB	+QUARTY STING	SRF 2630.0000 INCH-ES
(002103)	140	UPVT	1087	140	A/B	0RB	+QUARTY STING	SRF 2630.0000 INCH-ES
(002104)	140	UPVT	1087	140	A/B	0RB	+QUARTY STING	SRF 2630.0000 INCH-ES
(002105)	140	UPVT	1087	140	A/B	0RB	+QUARTY STING	SRF 2630.0000 INCH-ES
(002106)	140	UPVT	1087	140	A/B	0RB	+QUARTY STING	SRF 2630.0000 INCH-ES
(002107)	140	UPVT	1087	140	A/B	0RB	+QUARTY STING	SRF 2630.0000 INCH-ES
(002108)	140	UPVT	1087	140	A/B	0RB	+QUARTY STING	SRF 2630.0000 INCH-ES
(002109)	140	UPVT	1087	140	A/B	0RB	+QUARTY STING	SRF 2630.0000 INCH-ES
(002110)	140	UPVT	1087	140	A/B	0RB	+QUARTY STING	SRF 2630.0000 INCH-ES
(002111)	140	UPVT	1087	140	A/B	0RB	+QUARTY STING	SRF 2630.0000 INCH-ES
(002112)	140	UPVT	1087	140	A/B	0RB	+QUARTY STING	SRF 2630.0000 INCH-ES
(002113)	140	UPVT	1087	140	A/B	0RB	+QUARTY STING	SRF 2630.0000 INCH-ES
(002114)	140	UPVT	1087	140	A/B	0RB	+QUARTY STING	SRF 2630.0000 INCH-ES
(002115)	140	UPVT	1087	140	A/B	0RB	+QUARTY STING	SRF 2630.0000 INCH-ES
(002116)	140	UPVT	1087	140	A/B	0RB	+QUARTY STING	SRF 2630.0000 INCH-ES
(002117)	140	UPVT	1087	140	A/B	0RB	+QUARTY STING	SRF 2630.0000 INCH-ES
(002118)	140	UPVT	1087	140	A/B	0RB	+QUARTY STING	SRF 2630.0000 INCH-ES
(002119)	140	UPVT	1087	140	A/B	0RB	+QUARTY STING	SRF 2630.0000 INCH-ES
(002120)	140	UPVT	1087	140	A/B	0RB	+QUARTY STING	SRF 2630.0000 INCH-ES
(002121)	140	UPVT	1087	140	A/B	0RB	+QUARTY STING	SRF 2630.0000 INCH-ES
(002122)	140	UPVT	1087	140	A/B	0RB	+QUARTY STING	SRF 2630.0000 INCH-ES
(002123)	140	UPVT	1087	140	A/B	0RB	+QUARTY STING	SRF 2630.0000 INCH-ES
(002124)	140	UPVT	1087	140	A/B	0RB	+QUARTY STING	SRF 2630.0000 INCH-ES
(002125)	140	UPVT	1087	140	A/B	0RB	+QUARTY STING	SRF 2630.0000 INCH-ES
(002126)	140	UPVT	1087	140	A/B	0RB	+QUARTY STING	SRF 2630.0000 INCH-ES
(002127)	140	UPVT	1087	140	A/B	0RB	+QUARTY STING	SRF 2630.0000 INCH-ES
(002128)	140	UPVT	1087	140	A/B	0RB	+QUARTY STING	SRF 2630.0000 INCH-ES
(002129)	140	UPVT	1087	140	A/B	0RB	+QUARTY STING	SRF 2630.0000 INCH-ES
(002130)	140	UPVT	1087	140	A/B	0RB	+QUARTY STING	SRF 2630.0000 INCH-ES
(002131)	140	UPVT	1087	140	A/B	0RB	+QUARTY STING	SRF 2630.0000 INCH-ES
(002132)	140	UPVT	1087	140	A/B	0RB	+QUARTY STING	SRF 2630.0000 INCH-ES
(002133)	140	UPVT	1087	140	A/B	0RB	+QUARTY STING	SRF 2630.0000 INCH-ES
(002134)	140	UPVT	1087	140	A/B	0RB	+QUARTY STING	SRF 2630.0000 INCH-ES
(002135)	140	UPVT	1087	140	A/B	0RB	+QUARTY STING	SRF 2630.0000 INCH-ES
(002136)	140	UPVT	1087	140	A/B	0RB	+QUARTY STING	SRF 2630.0000 INCH-ES
(002137)	140	UPVT	1087	140	A/B	0RB	+QUARTY STING	SRF 2630.0000 INCH-ES
(002138)	140	UPVT	1087	140	A/B	0RB	+QUARTY STING	SRF 2630.0000 INCH-ES
(002139)	140	UPVT	1087	140	A/B	0RB	+QUARTY STING	SRF 2630.0000 INCH-ES
(002140)	140	UPVT	1087	140	A/B	0RB	+QUARTY STING	SRF 2630.0000 INCH-ES
(002141)	140	UPVT	1087	140	A/B	0RB	+QUARTY STING	SRF 2630.0000 INCH-ES
(002142)	140	UPVT	1087	140	A/B	0RB	+QUARTY STING	SRF 2630.0000 INCH-ES
(002143)	140	UPVT	1087	140	A/B	0RB	+QUARTY STING	SRF 2630.0000 INCH-ES
(002144)	140	UPVT	1087	140	A/B	0RB	+QUARTY STING	SRF 2630.0000 INCH-ES
(002145)	140	UPVT	1087	140	A/B	0RB	+QUARTY STING	SRF 2630.0000 INCH-ES
(002146)	140	UPVT	1087	140	A/B	0RB	+QUARTY STING	SRF 2630.0000 INCH-ES
(002147)	140	UPVT	1087	140	A/B	0RB	+QUARTY STING	SRF 2630.0000 INCH-ES
(002148)	140	UPVT	1087	140	A/B	0RB	+QUARTY STING	SRF 2630.0000 INCH-ES
(002149)	140	UPVT	1087	140	A/B	0RB	+QUARTY STING	SRF 2630.0000 INCH-ES
(002150)	140	UPVT	1087	140	A/B	0RB	+QUARTY STING	SRF 2630.0000 INCH-ES

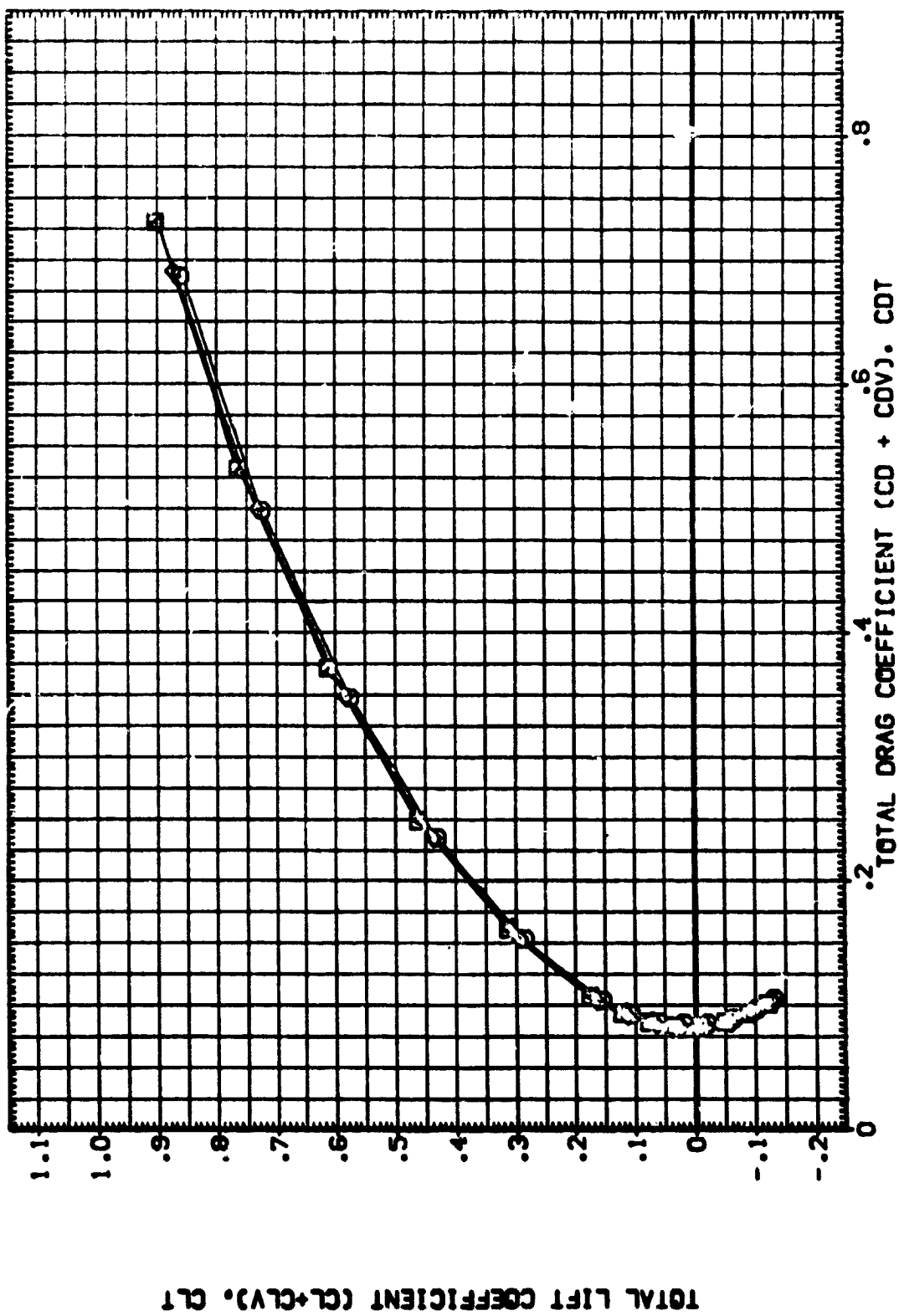


FIG.5 BODY FLAP EFFECTIVENESS
(B)MACH = 3.95

DATA SET	SWELL	CONFIGURATION DESCRIPTION	BETA	BD FLAP	SPORCK	ELEVON	REFERENCE INFORMATION
(002101)	Q	BA-208 LARC UPVT 1087 140 A/V 088	.000	-11.700	54.920	.000	REF 2690.0000 SO.FT.
(002102)	Q	BA-208 LARC UPVT 1087 140 A/V 088	.000	-16.300	54.920	.000	LREF 1290.3000 INO-ES
(002107)	Q	BA-208 LARC UPVT 1087 140 A/V 088	.000	-11.700	54.920	.000	BREF 936.8000 INO-ES
(002108)	Q	BA-208 LARC UPVT 1087 140 A/V 088	.000	-16.300	54.920	.000	XREF 1076.7000 INO-ES
							YREF .0000 INO-ES
							ZREF 375.0000 INO-ES
							SCALE .0150 SCALE

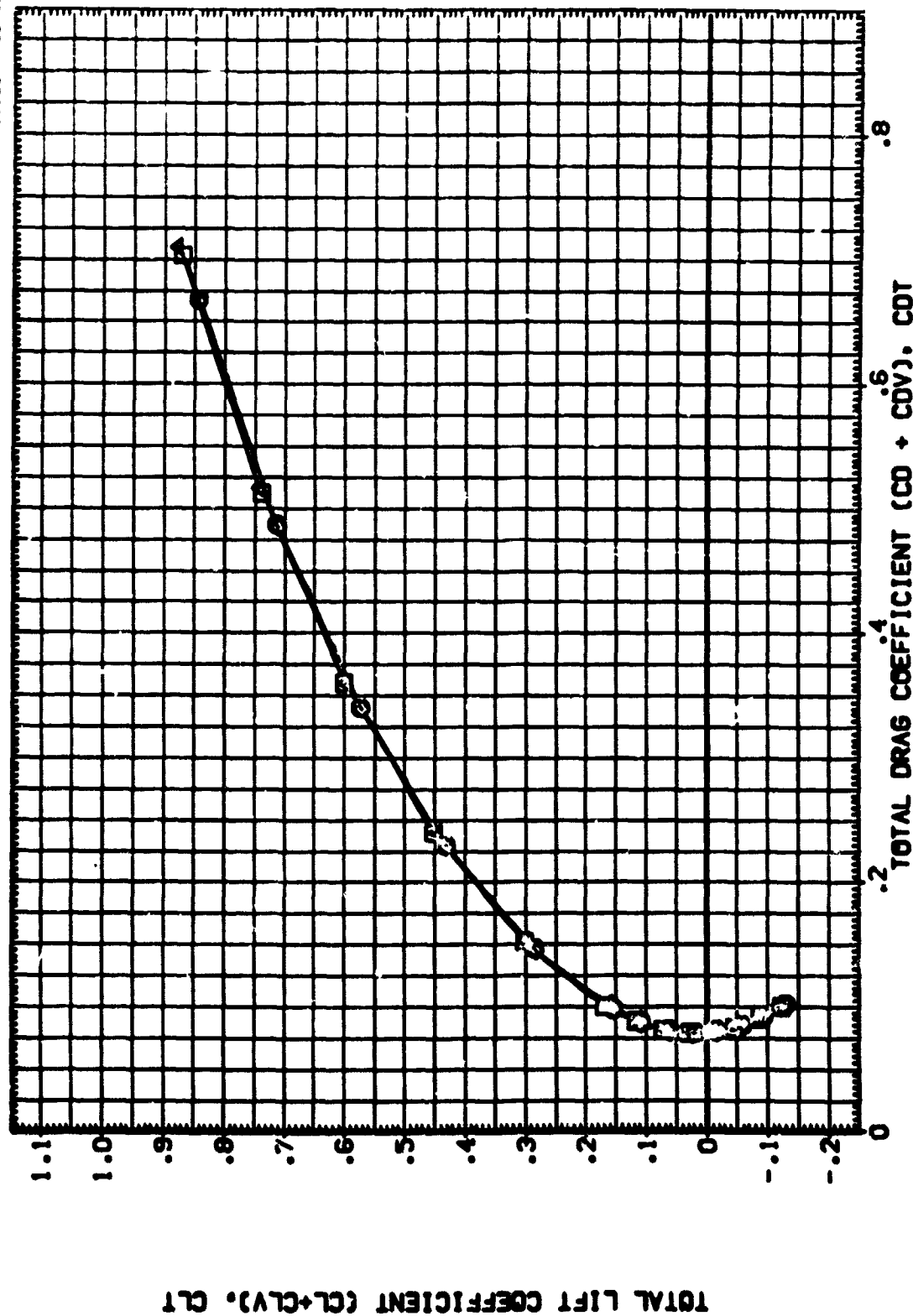


FIG.5 BODY FLAP EFFECTIVENESS

(C)MACH = 4.63

DATA SET SYMBOL: 002101 002102 002103 002104 002105

CONF IDURATION DESCRIPTION: 0A-208 LARC UPVT 1057 140 A/B 008 0A-208 LARC UPVT 1057 140 A/B 008 0A-208 LARC UPVT 1057 140 A/B 008 0A-208 LARC UPVT 1057 140 A/B 008

BETA: .000 .000 .000 .000 .000

REFLAP: -11.700 -16.300 -11.700 -16.300

SPOONK: 54.520 54.520 54.520 54.520

ELEVON: .000 .000 .000 .000

REFERENCE INFORMATION: SREF 2650.0000 50.FT. LREF 1250.2000 INCHES BREF 305.6000 INCHES XPRP 1076.7000 INCHES YPRP 375.0000 INCHES ZPRP 375.0000 INCHES SCALE .0150

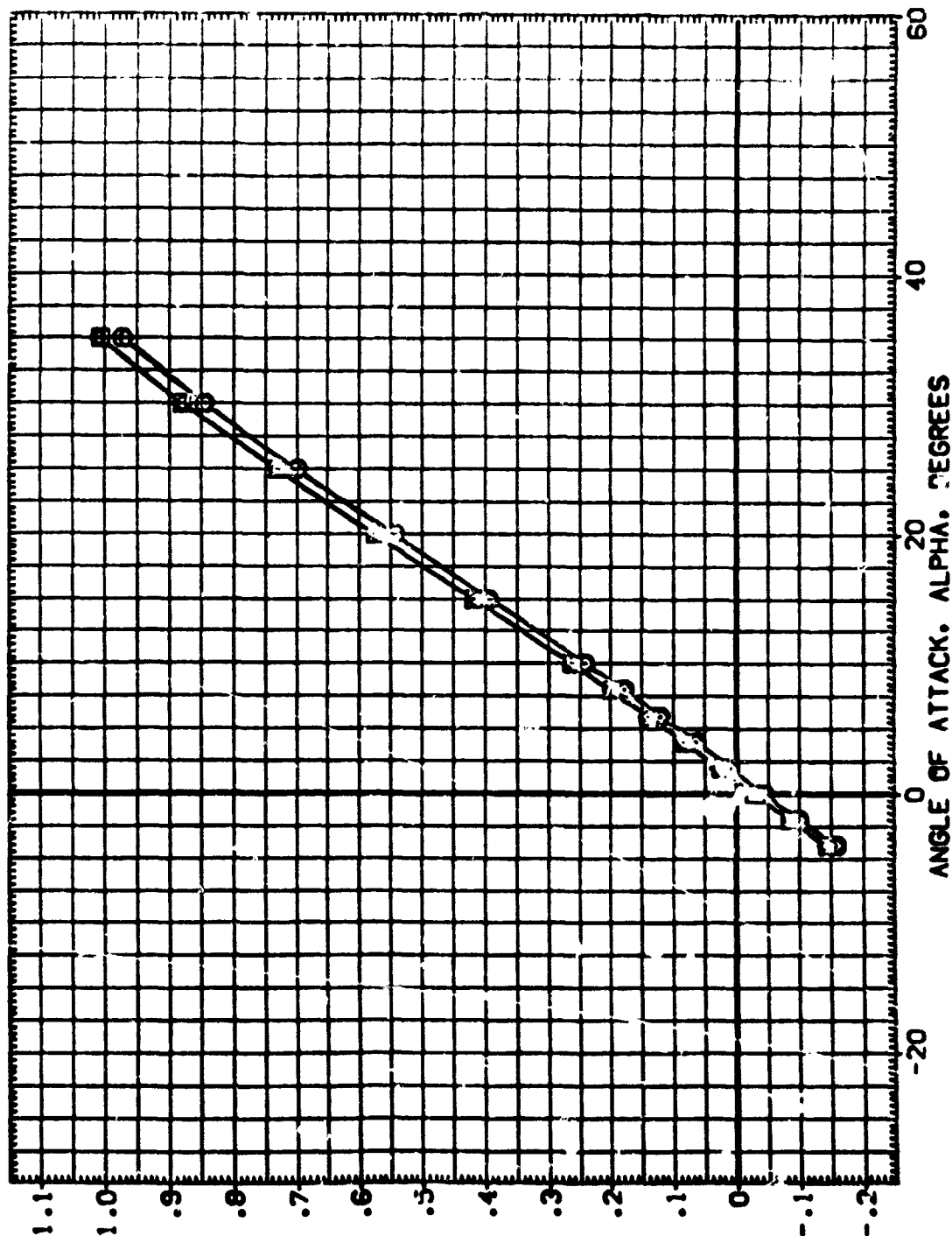


FIG.5 BODY FLAP EFFECTIVENESS

(A)MACH = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BOFLAP	SPDRK	ELEVON	REFERENCE INFORMATION
(002101)	0A-208 LARC UPVT 1097 140 A/B 098 +DUMMY STING	.000	-11.700	54.520	.000	SREF 2680.0000 SO.FT.
(002103)	0A-208 LARC UPVT 1097 140 A/B 098 +DUMMY STING	.000	-16.300	54.520	.000	LREF 1250.3000 INCHES
(002107)	0A-208 LARC UPVT 1097 140 A/B 098	.000	-11.700	54.520	.000	BREF 506.6800 INCHES
(002109)	0A-208 LARC UPVT 1097 140 A/B 098	.000	16.300	54.520	.000	XMRP 1076.7000 INCHES
						YMRP .0000 INCHES
						ZMRP 375.0000 INCHES
						SCALE .0150 SCALE

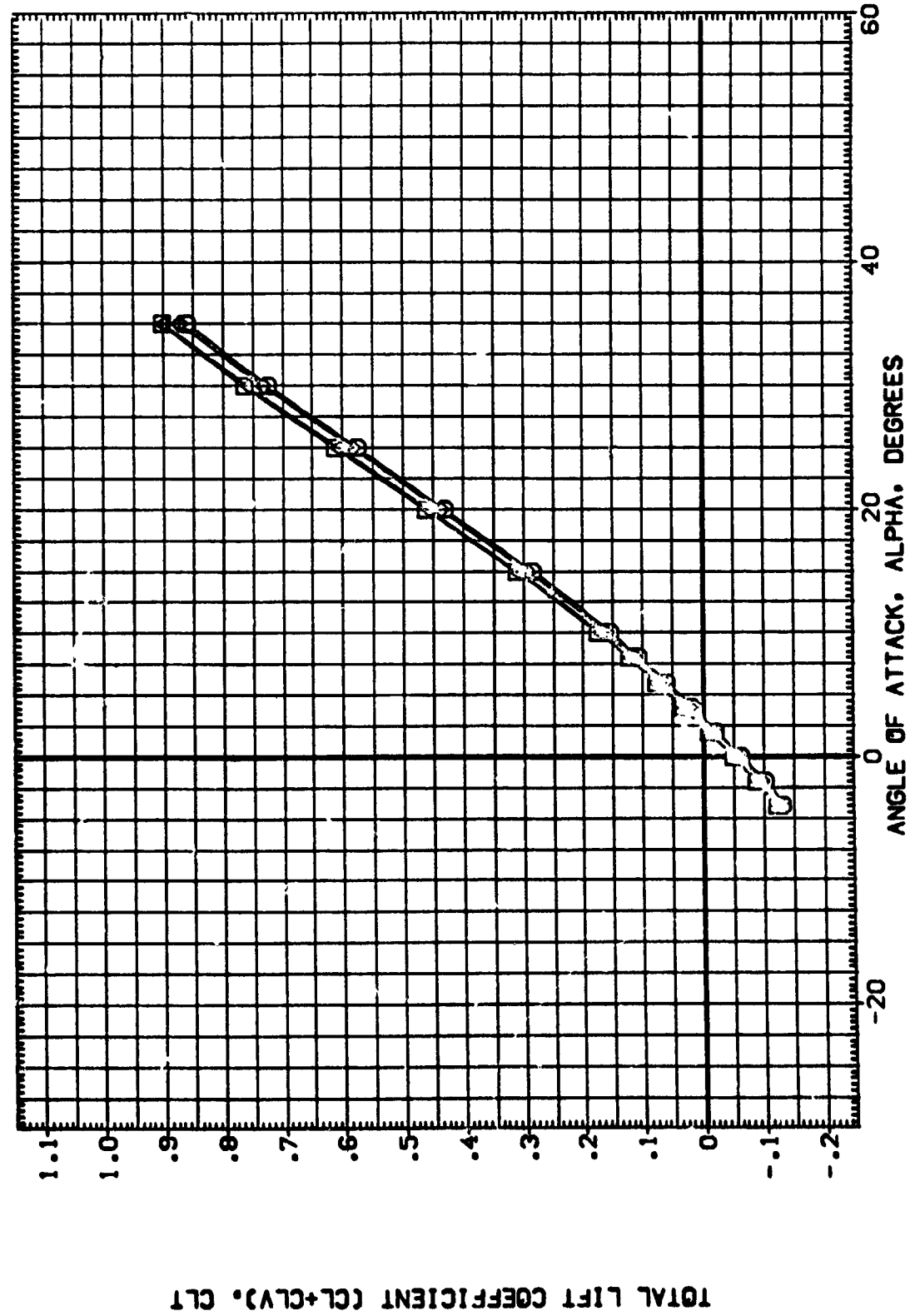
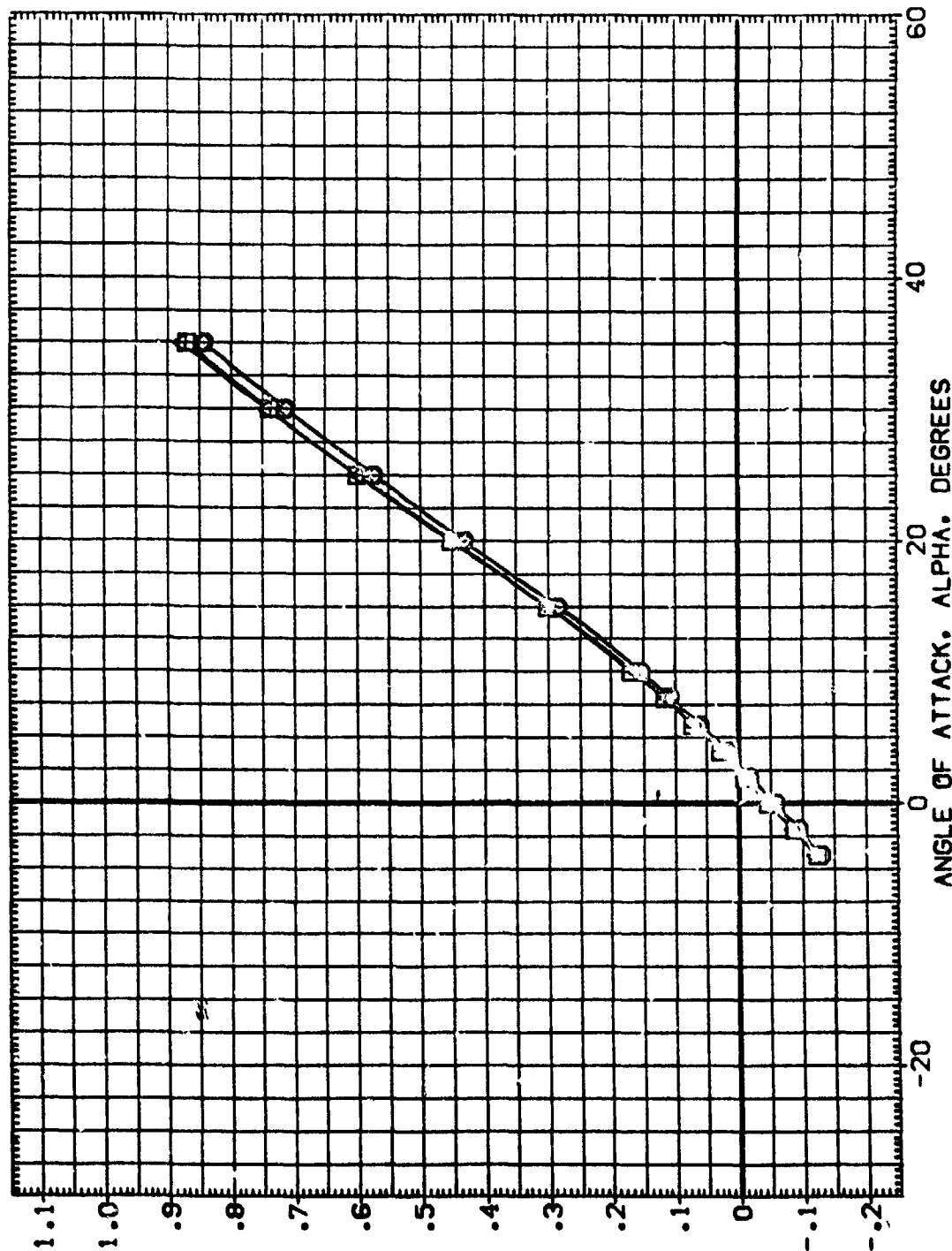


FIG.5 BODY FLAP EFFECTIVENESS

(B)MACH = 3.95

DATA SET	SYMBOL	CONFIGURATION	DESCRIPTION	BETA	BOFLAP	SPDBK	ELEVON	REFERENCE INFORMATION
(002101)	□	BA-208	LARC UPVT 1097 140 A/B	.000	-11.700	54.920	.000	SREF 2690.0000 SQ.FT.
(002103)	□	BA-208	LARC UPVT 1097 140 A/B	.000	-16.300	54.920	.000	LREF 1290.3000 INCHES
(002107)	□	BA-208	LARC UPVT 1097 140 A/B	.000	-11.700	54.920	.000	BREF 936.6000 INCHES
(002109)	□	BA-208	LARC UPVT 1097 140 A/B	.000	-16.300	54.920	.000	XREF 1076.7000 INCHES
								YREF .0000 INCHES
								ZREF 375.0000 INCHES
								SCALE .0150



TOTAL LIFT COEFFICIENT (CL+CLV), CLT

FIG. 5 BODY FLAP EFFECTIVENESS

(C)MACH = 4.63



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BDFLAP	SPOBRK	ELEVON	REFERENCE INFORMATION
(G22101)	0A-208 LARC UPVT 1057 140 A/B 058 +DJMY STING	.000	-11.700	54.920	.000	2690.0000 50.000
(G22103)	0A-208 LARC UPVT 1057 140 A/B 058 +DJMY STING	.000	-16.300	54.920	.000	1290.3000 10.000
(G22107)	0A-208 LARC UPVT 1057 140 A/B 058	.000	-11.700	54.920	.000	926.6000 10.000
(G22109)	0A-208 LARC UPVT 1057 140 A/B 058	.000	-16.300	54.920	.000	1075.7000 10.000
						YMRP .0000 10.000
						ZMRP 375.0000 10.000
						SCALE .0150

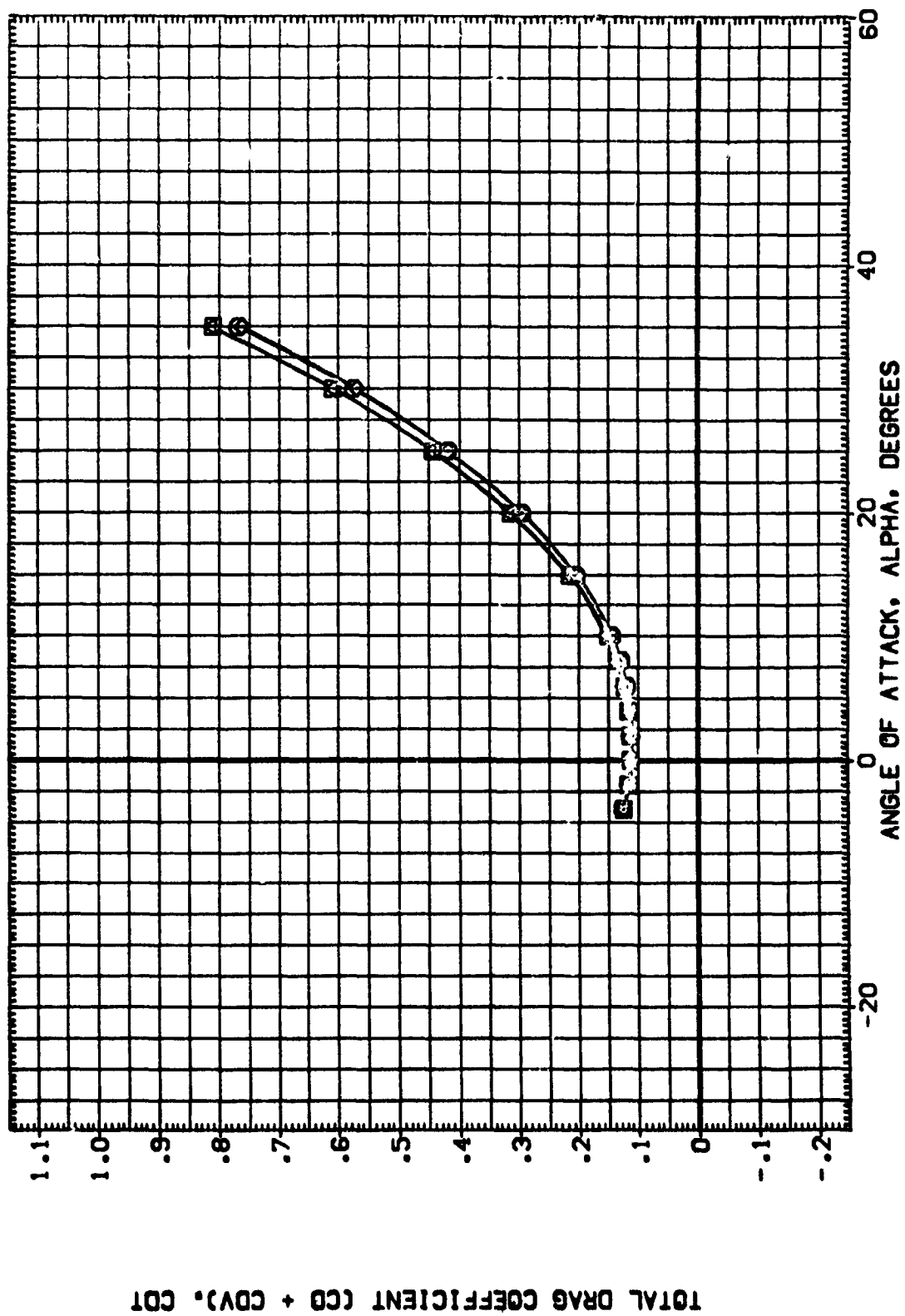


FIG. 5 BODY FLAP EFFECTIVENESS

(A)MACH = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BOFLAP	SPDWRK	ELEVON	REFERENCE INFORMATION
{002101}	BA-208 LARC UPVT 1087 140 A/B 0R8 +QUATT STING	.000	-11.700	54.920	.000	SREF 2690.0000 50.000
{002103}	BA-208 LARC UPVT 1087 140 A/B 0R8 +QUATT STING	.000	-11.700	54.920	.000	LREF 1290.3000 100.000
{002107}	BA-208 LARC UPVT 1087 140 A/B 0R8	.000	-11.700	54.920	.000	BREF 936.6300 100.000
{002109}	BA-208 LARC UPVT 1087 140 A/B 0R8	.000	-11.700	54.920	.000	XMRP 1076.7000 100.000
						YMRP 375.0000 100.000
						ZMRP 375.0000 100.000
						SCALE .0150

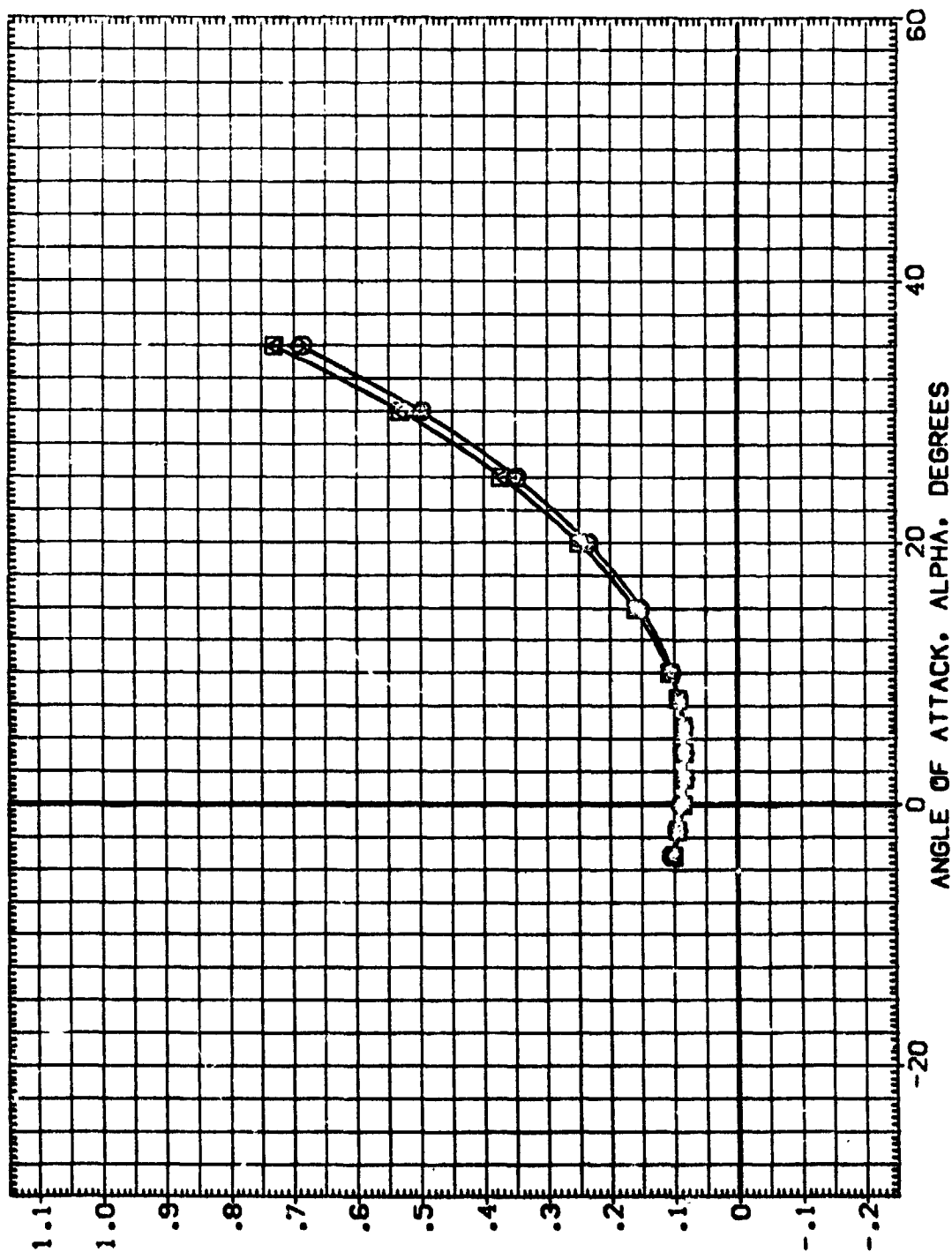


FIG.5 BODY FLAP EFFECTIVENESS
(B)MACH = 3.95

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BD FLAP	SPOBRK	ELEVON	REFERENCE INFORMATION
(002101)	BA-208 LARC UPVT 1097 140 A/B 0/8	.000	-11.700	54.920	.000	SREF 2680.0000 SQ.FT.
(002103)	BA-208 LARC UPVT 1097 140 A/B 0/8	.000	-16.300	54.920	.000	LREF 1250.3000 INCHES
(002107)	BA-208 LARC UPVT 1097 140 A/B 0/8	.000	-11.700	54.920	.000	BREF 336.6000 INCHES
(002109)	BA-208 LARC UPVT 1097 140 A/B 0/8	.000	-16.300	54.920	.000	XMRP 1076.7000 INCHES
						YMRP .0000 INCHES
						ZMRP 375.0000 INCHES
						SCALE .0150

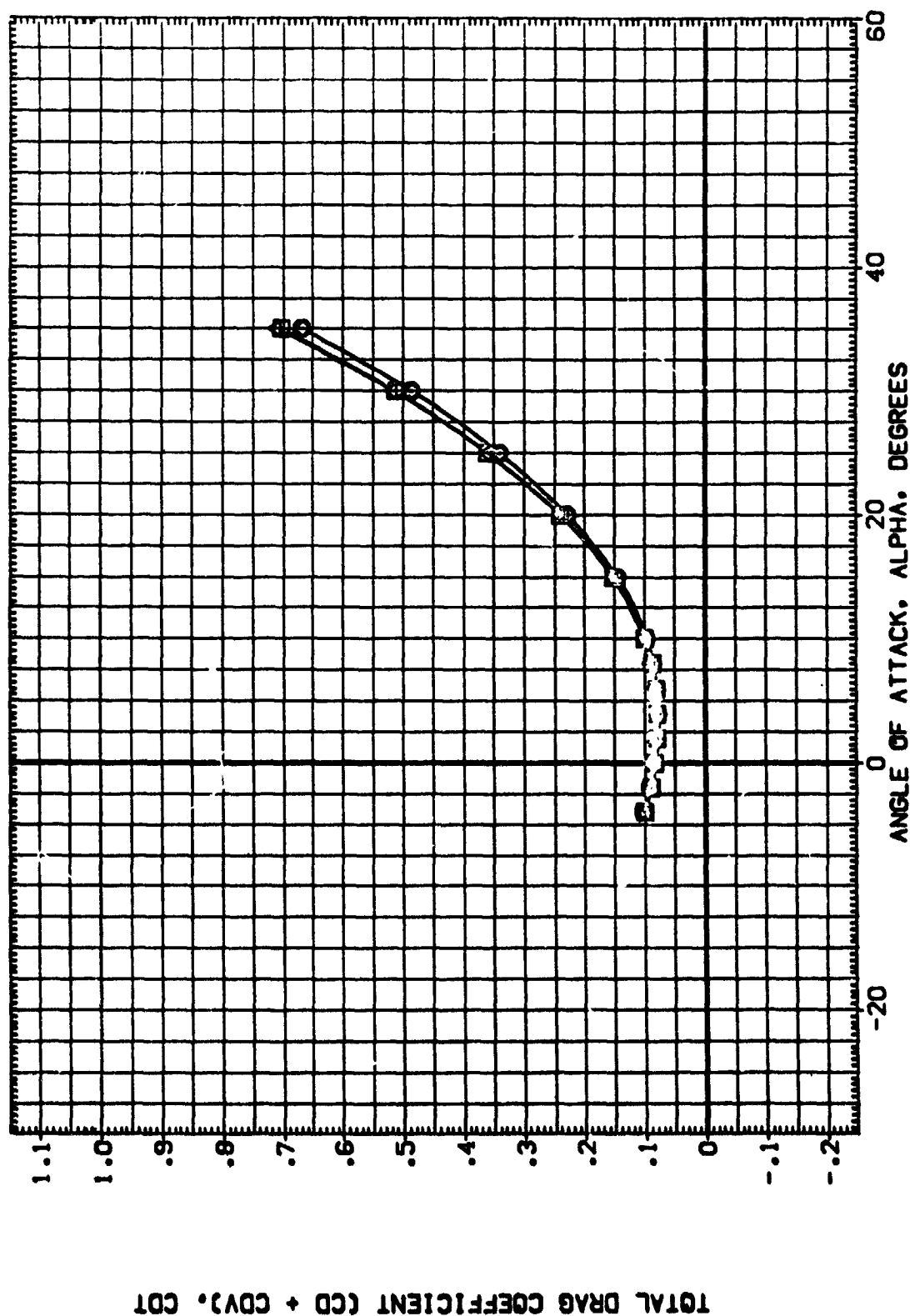


FIG. 16.5 BODY FLAP EFFECTIVENESS

(C)MACH = 4.63

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BOFLAP	SPOBRK	ELEVON	REFERENCE INFORMATION
(002101)	GA-208 LARC UPVT 1097 140 A/B 5/8	.000	-11.700	54.920	.000	SREF 2690.0000 SQ.FT.
(002102)	GA-208 LARC UPVT 1097 140 A/B 5/8	.000	-11.700	54.920	.000	LREF 1290.2000 INCHES
(002103)	GA-208 LARC UPVT 1097 140 A/B 5/8	.000	-11.700	54.920	.000	BREF 936.6300 INCHES
(002104)	GA-208 LARC UPVT 1097 140 A/B 5/8	.000	-11.700	54.920	.000	XMRP 1075.7000 INCHES
(002105)	GA-208 LARC UPVT 1097 140 A/B 5/8	.000	-11.700	54.920	.000	YMRP .0000 INCHES
						ZMRP 375.0000 INCHES
						SCALE .0150

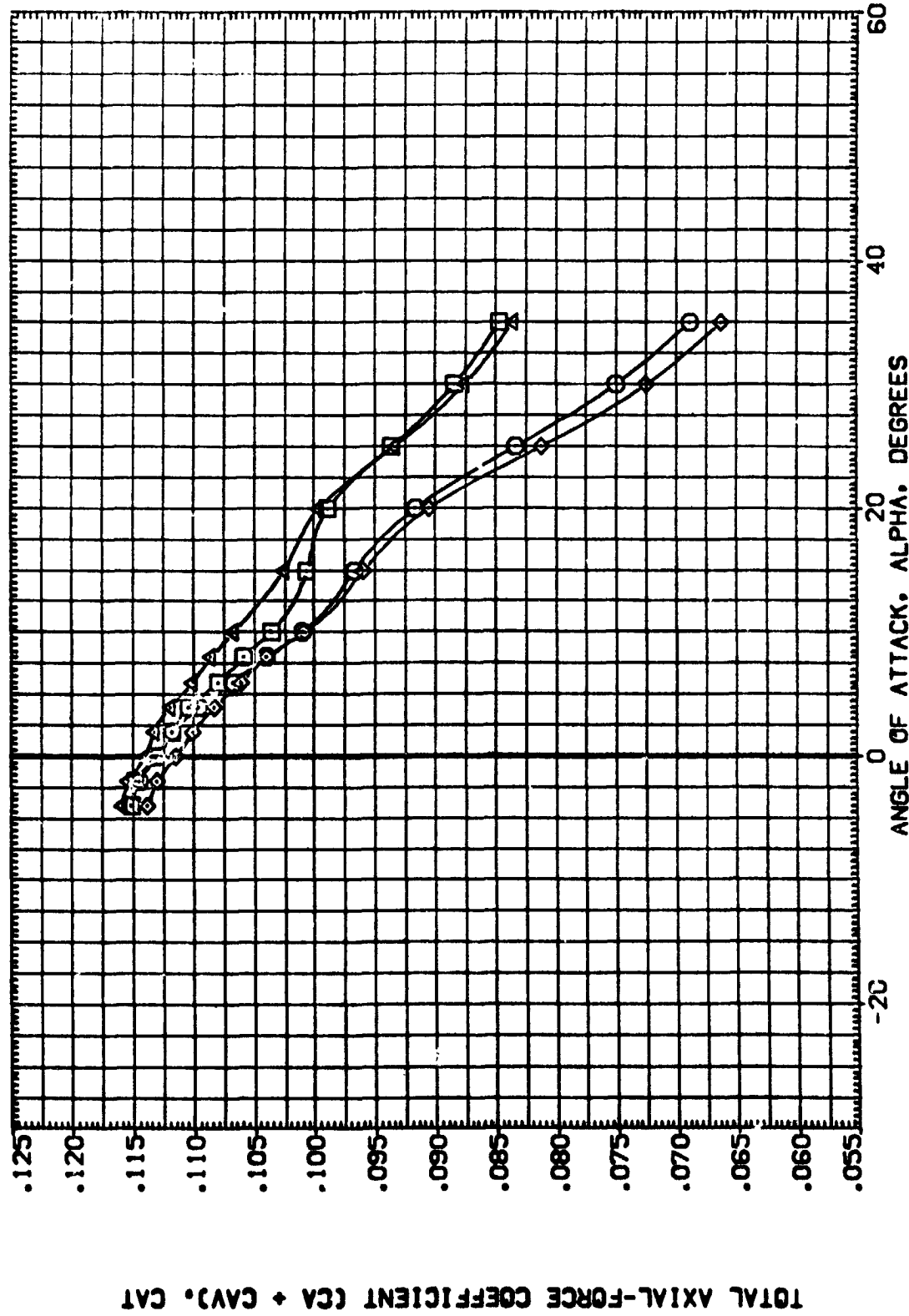


FIG.5 BODY FLAP EFFECTIVENESS

(A)MACH = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BD FLAP	SPDRX	ELEVON	REFERENCE INFORMATION
{002101}	0A-208 LAR UPVT 1097 140 A/B 0/0	.000	-11.700	54.920	.000	9REF 2690.0000 SQ.FT.
{002102}	0A-208 LAR UPVT 1097 140 A/B 0/0	.000	-16.300	54.920	.000	LREF 1290.3000 INCHES
{002103}	0A-208 LAR UPVT 1097 140 A/B 0/0	.000	-11.700	54.920	.000	BREF 936.6000 INCHES
{002107}	0A-208 LAR UPVT 1097 140 A/B 0/0	.000	-16.300	54.920	.000	XREF 1076.7000 INCHES
{002108}	0A-208 LAR UPVT 1097 140 A/B 0/0	.000	-16.300	54.920	.000	YREF 375.0000 INCHES
						ZREF 375.0150 INCHES
						SCALE

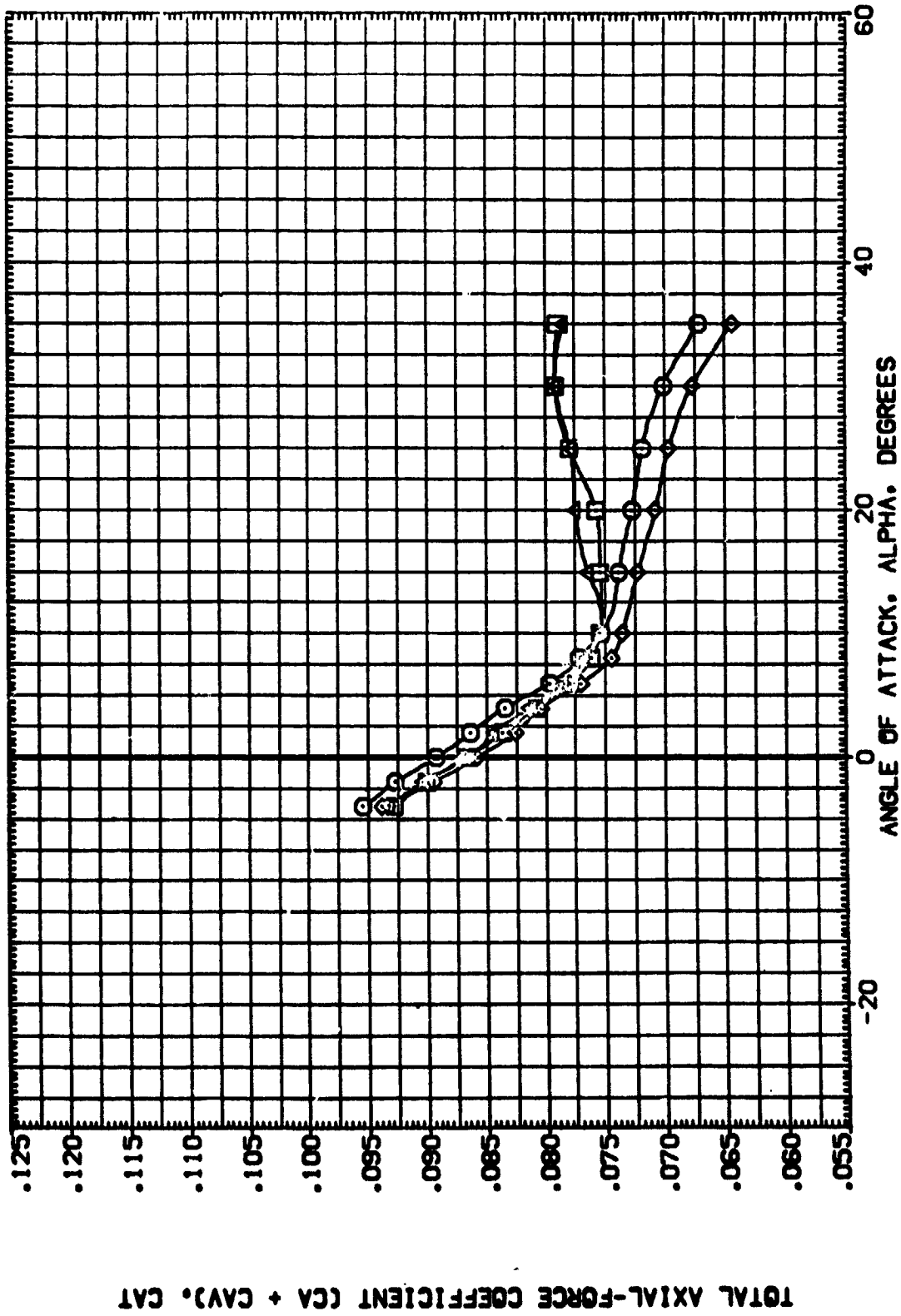
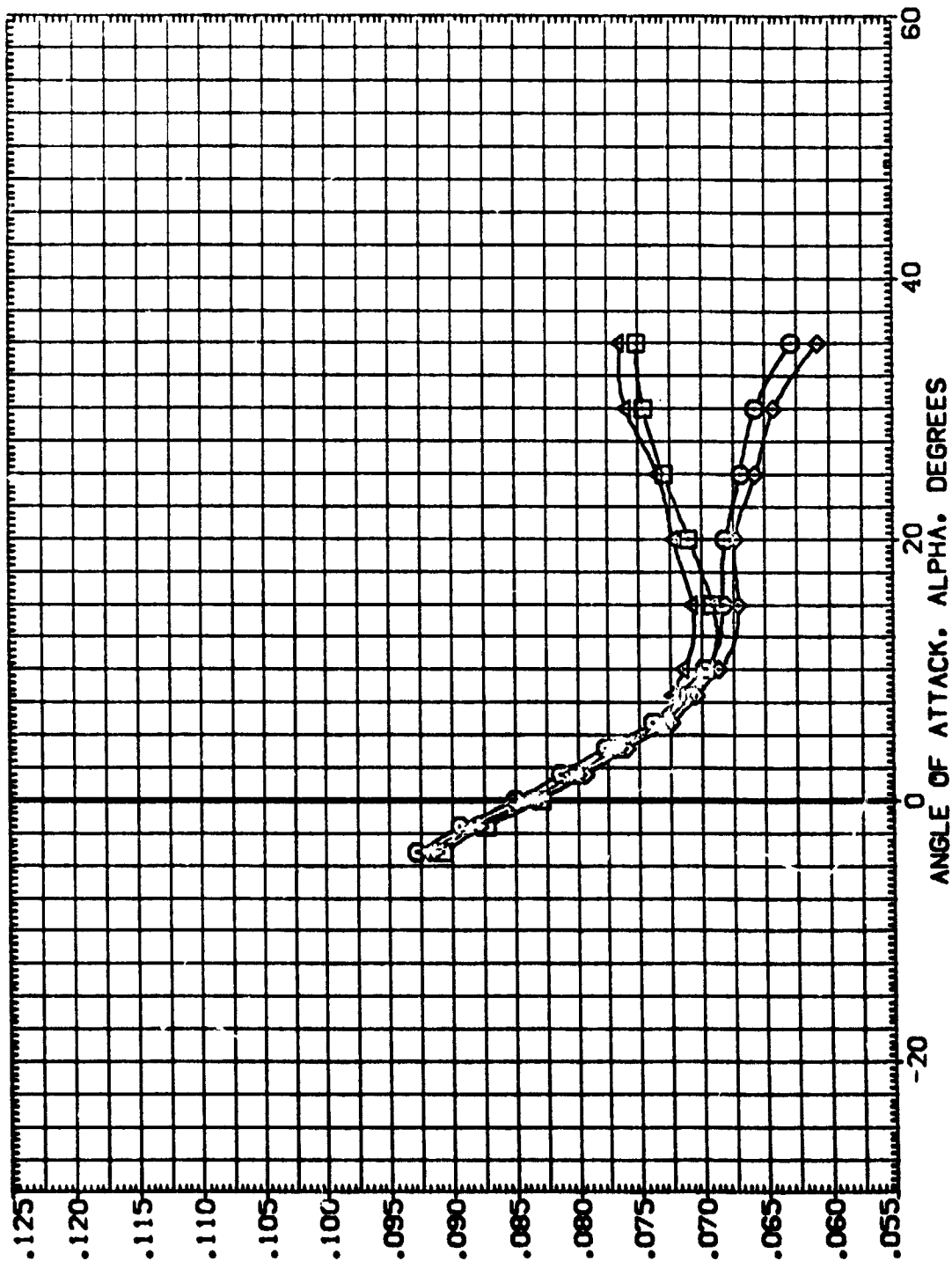


FIG. 5 BODY FLAP EFFECTIVENESS

(B)MACH = 3.95

DATA SET SERIAL CONFIGURATION DESCRIPTION

DATA SET SERIAL	CONFIGURATION DESCRIPTION	BETA	BOFLAP	SPOBRK	ELEVON	REFERENCE INFORMATION
(002101)	0A-208 LARC UPVT 1057 140 A/B DB8	.000	-11.700	54.920	.000	SREF 2690.0000 SQ.FT.
(002103)	0A-208 LARC UPVT 1057 140 A/B DB8	.000	-16.300	54.920	.000	LREF 1290.3000 INCHES
(002107)	0A-208 LARC UPVT 1057 140 A/B DB8	.000	-11.700	54.920	.000	BREF 936.6000 INCHES
(002108)	0A-208 LARC UPVT 1057 140 A/B DB8	.000	16.300	54.920	.000	XPRP 1076.7000 INCHES
						YPRP .0000 INCHES
						ZPRP .0000 INCHES
						SCALE .0150 SCALE



TOTAL AXIAL-FORCE COEFFICIENT (CA + CAV), CAT

FIG.5 BODY FLAP EFFECTIVENESS

(C)MACH = 4.63



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BD FLAP	SPD BRK	ELEVON	REFERENCE INFORMATION
(E02101)	SA-208 LANC UPVT 1097 140 A/B DBB	.000	-11.700	54.920	.000	SREF 2680.0000 SQ.FT.
(E02107)	SA-208 LANC UPVT 1097 140 A/B DBB	.000	-11.700	54.920	.000	LREF 1290.3000 INO-ES
(E02102)	SA-208 LANC UPVT 1097 140 A/B DBB	3.000	-11.700	54.920	.000	BREF 535.6500 INO-ES
(E02108)	SA-208 LANC UPVT 1097 140 A/B DBB	3.000	-11.700	54.920	.000	XREF 1076.7000 INO-ES
(E02103)	SA-208 LANC UPVT 1097 140 A/B DBB	.000	16.300	54.920	.000	YREF .0000 INO-ES
(E02108)	SA-208 LANC UPVT 1097 140 A/B DBB	.000	16.300	54.920	.000	ZREF .0000 INO-ES
						SCALE .0150 SCALE

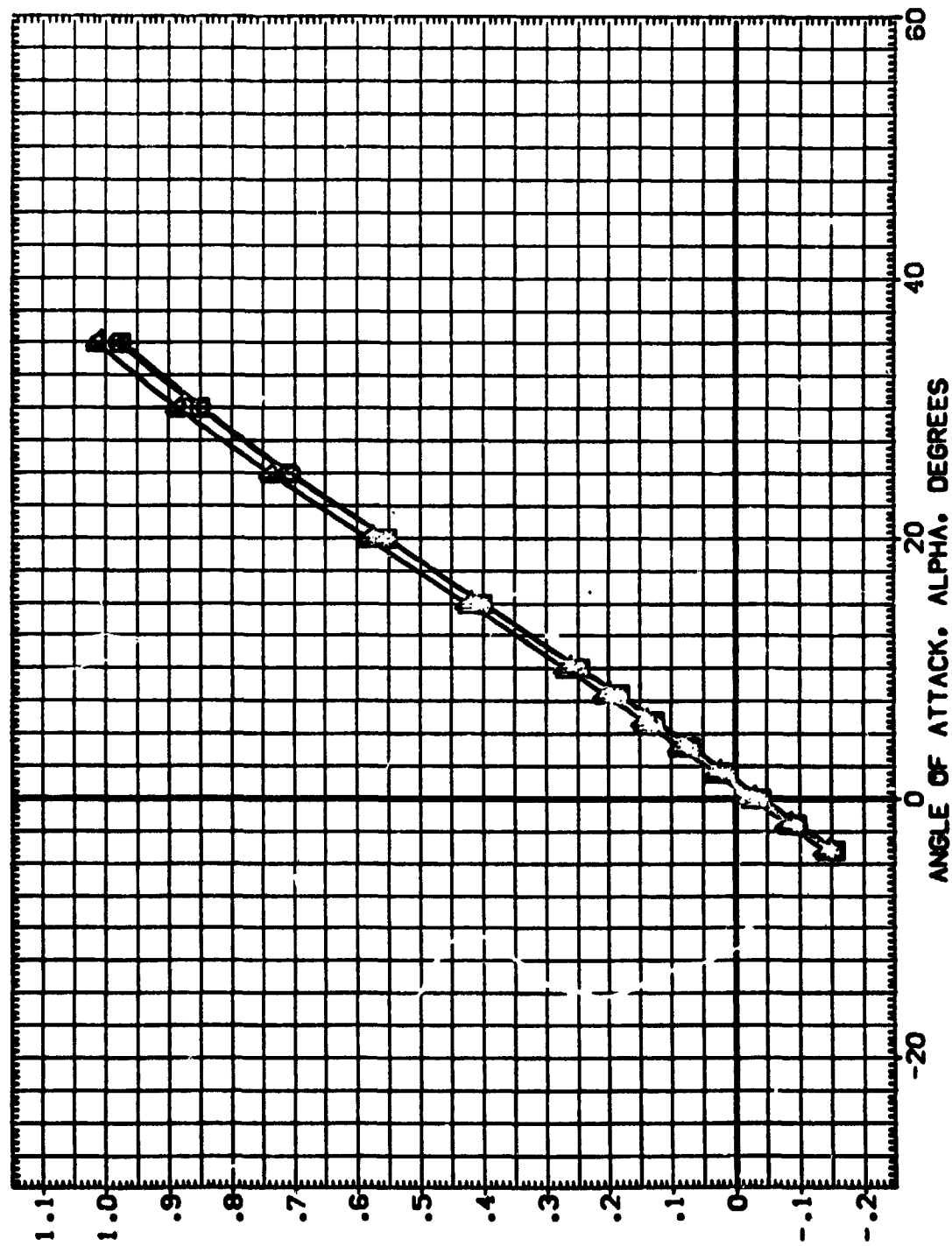


FIG. 6 STING AND NOZZLE TARES

(A)MACH = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BDFLAP	SPOBRK	ELEVON	REFERENCE INFORMATION
(E02101)	BA-208 LARC UPVT 1057 140 A/B DB8	.000	-11.700	54.520	.000	SREF 2650.0000 SQ.FT.
(E02102)	BA-208 LARC UPVT 1057 140 A/B DB8	.000	-11.700	54.520	.000	LREF 250.3000 INCHES
(E02103)	BA-208 LARC UPVT 1057 140 A/B DB8	3.000	-11.700	54.520	.000	BREF 596.6500 INCHES
(E02104)	BA-208 LARC UPVT 1057 140 A/B DB8	3.000	-11.700	54.520	.000	XMRP 1672.7000 INCHES
(E02105)	BA-208 LARC UPVT 1057 140 A/B DB8	.000	16.300	54.520	.000	YMRP 375.0000 INCHES
(E02106)	BA-208 LARC UPVT 1057 140 A/B DB8	.000	16.300	54.520	.000	ZMRP 375.0000 INCHES
						SCALE .0150

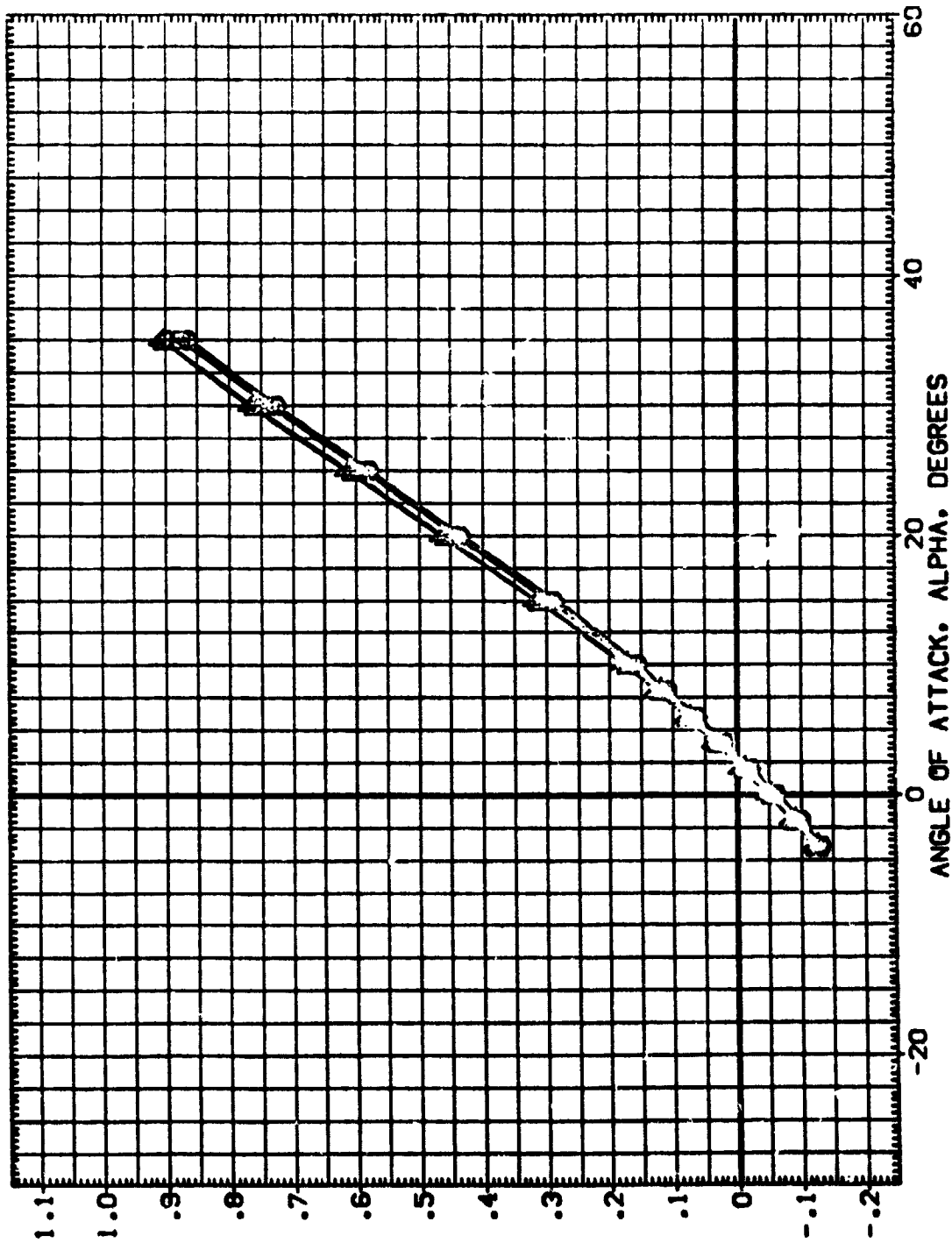


FIG. 6 STING AND NOZZLE TARES
(B)MACH = 3.95

DATA SET SWGL	CONF ID	DESCRIPTION	BETA	EDFLAP	SPUBRK	ELEVON	REFERENCE INFORMATION
{E02101}	BA-208	LARC UPVT 1057 140 A/B 0/8	.000	-11.700	54.520	.000	SREF 2680.0000 SQ.FT.
{E02102}	BA-208	LARC UPVT 1057 140 A/B 0/8	.000	-11.700	54.520	.000	LREF 1250.3000 INCHES
{E02103}	BA-208	LARC UPVT 1057 140 A/B 0/8	3.000	-11.700	54.520	.000	BREF 906.6700 INCHES
{E02104}	BA-208	LARC UPVT 1057 140 A/B 0/8	.000	16.300	54.520	.000	XREF 1076.7000 INCHES
{E02105}	BA-208	LARC UPVT 1057 140 A/B 0/8	.000	16.300	54.520	.000	YREF .0000 INCHES
{E02106}	BA-208	LARC UPVT 1057 140 A/B 0/8	.000	16.300	54.520	.000	ZREF 375.0000 INCHES
							SCALE .0150

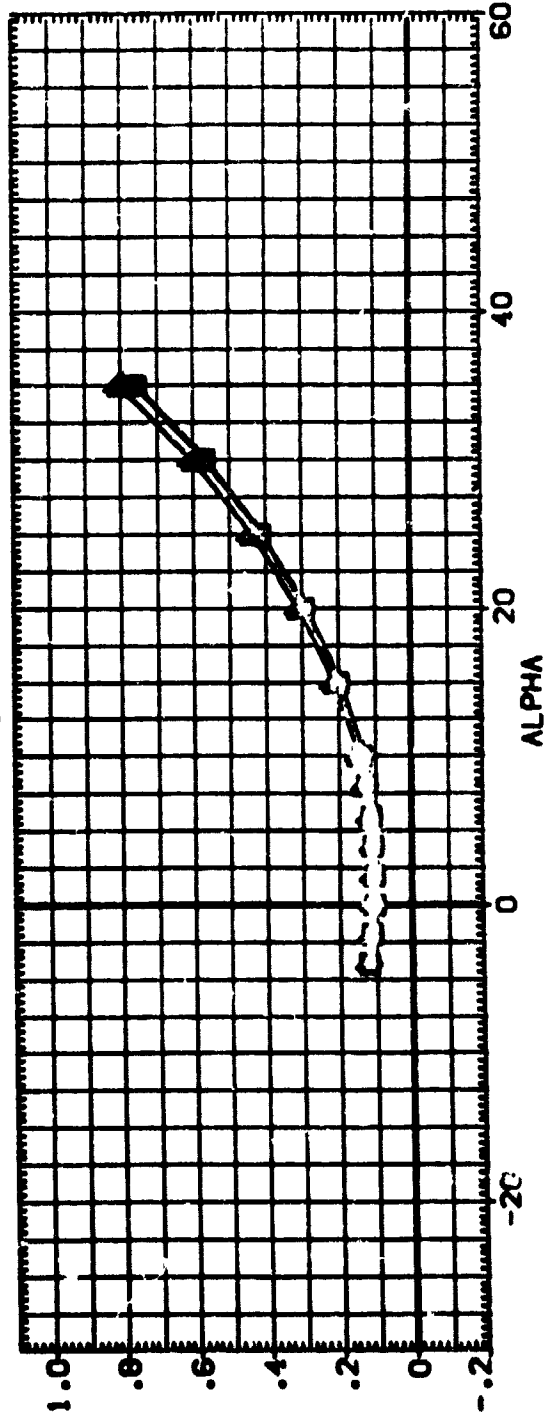
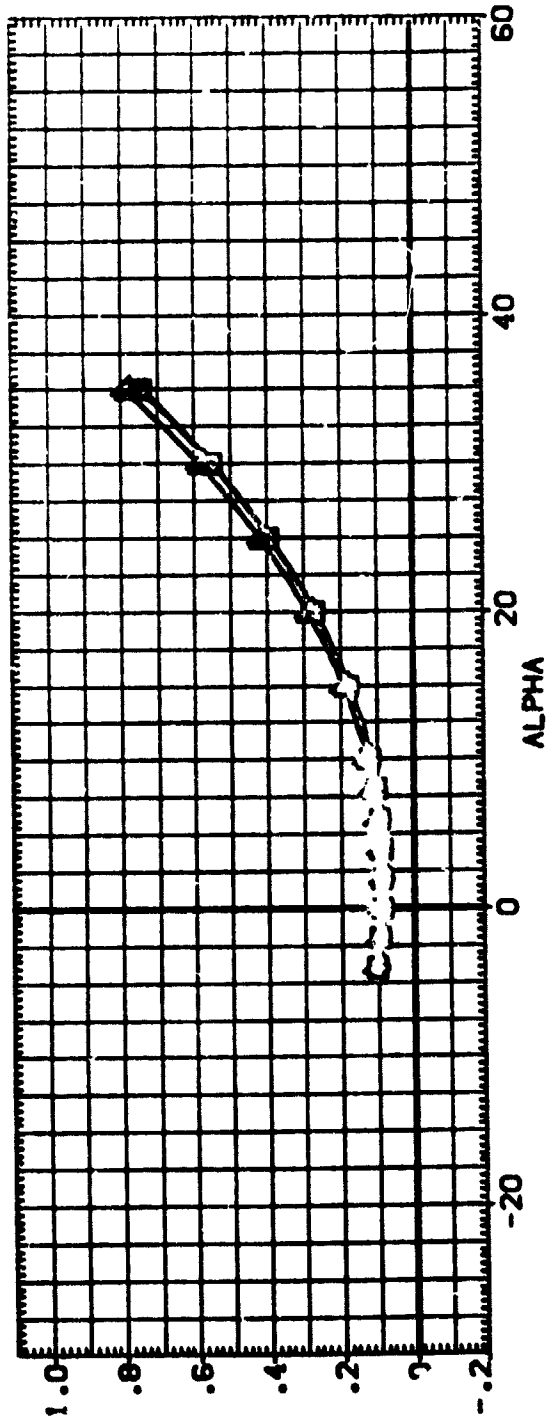


FIG. 6 STING AND NOZZLE TARES
(A)MACH = 2.50

DATA SET	SPRNG	CONF	IGLATION	DESCRIPTION	BETA	EDLAP	SPORK	ELEVON	REFERENCE INFORMATION	90 FT
(E02101)	00040	0A-208	LARC	UPVT 1087 100 A/B 028	.000	-11.700	54.520	.000	REF 2500.0000	INOVES
(E02102)		0A-208	LARC	UPVT 1087 100 A/B 028	.000	-11.700	54.520	.000	REF 1250.3000	INOVES
(E02103)		0A-208	LARC	UPVT 1087 100 A/B 028	3.000	-11.700	54.520	.000	REF 826.6000	INOVES
(E02104)		0A-208	LARC	UPVT 1087 100 A/B 028	3.000	-11.700	54.520	.000	REF 1076.7000	INOVES
(E02105)		0A-208	LARC	UPVT 1087 100 A/B 028	.000	16.300	54.520	.000	REF 375.0000	INOVES
(E02106)		0A-208	LARC	UPVT 1087 100 A/B 028	.000	16.300	54.520	.000	REF 375.0000	INOVES
									SCALE	SCALE

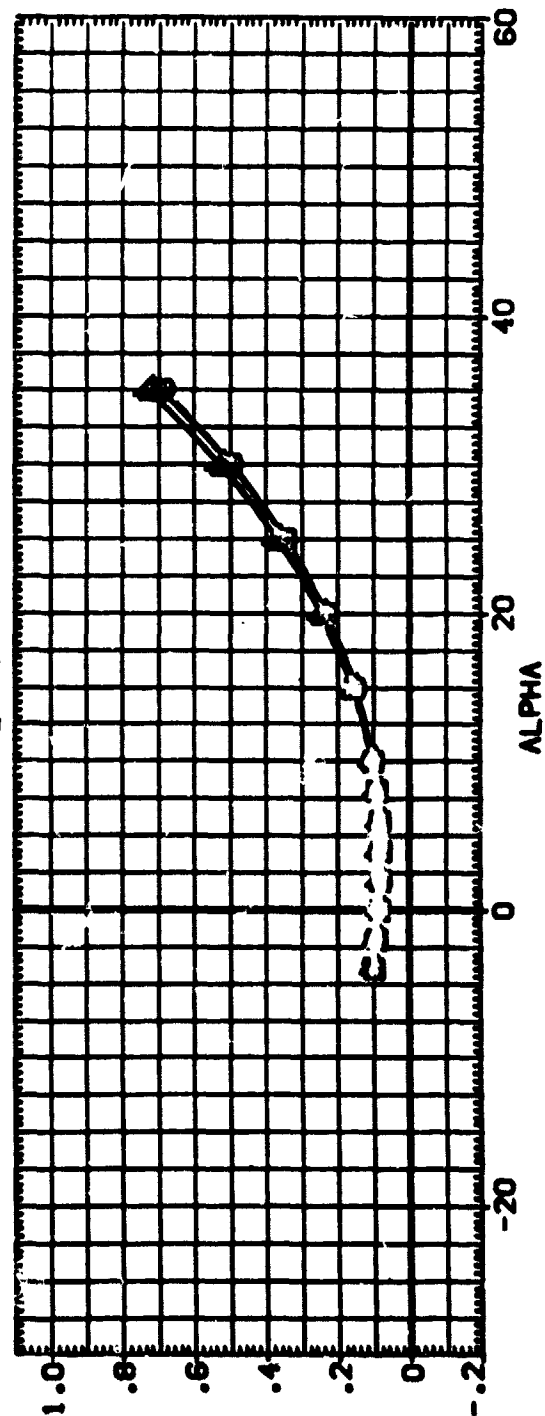
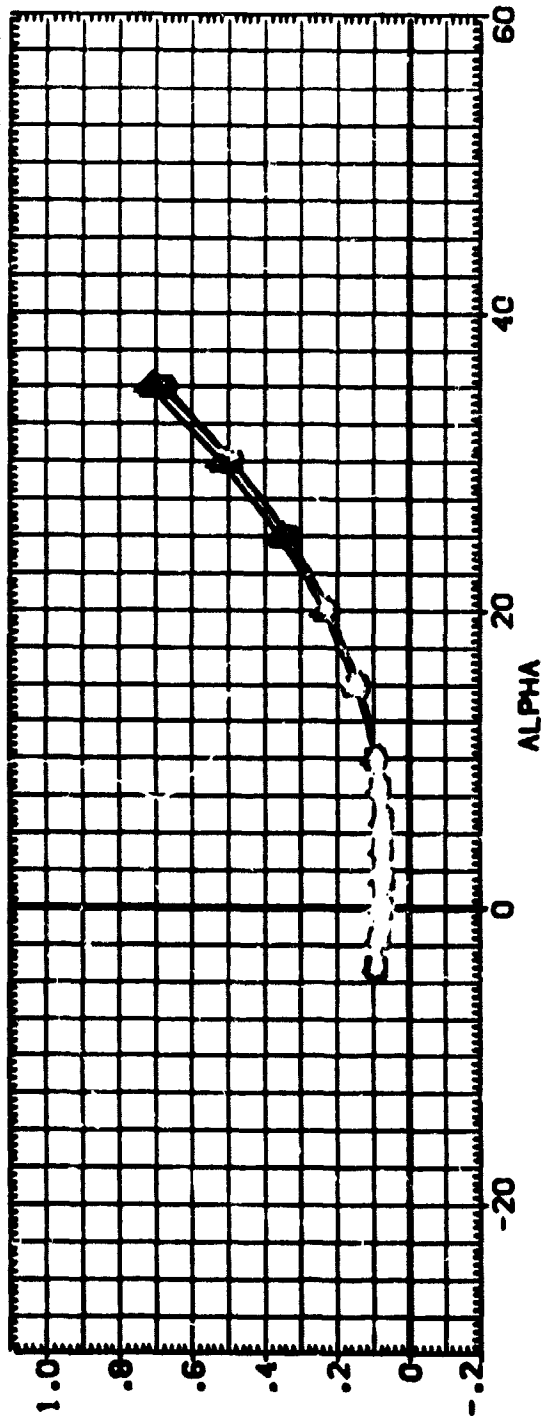


FIG. 6 STING AND NOZZLE TARES

(B)MACH = 3.95

DATA SET	SPEED	CONF	ISOLATION	DESCRIPTION	BETA	ED/LAP	SPDRK	ELEVON	REFERENCE INFORMATION
(E02101)	000000	0A-208	LARC	UPVT 1087 140 A/B 088	.000	-11.700	54.920	.000	SREF 2690.0000 SQ.FT.
(E02102)	000000	0A-208	LARC	UPVT 1087 140 A/B 088	.000	-11.700	54.920	.000	LREF 1290.3000 INCHES
(E02103)	000000	0A-208	LARC	UPVT 1087 140 A/B 088	3.000	-11.700	54.920	.000	BREF 935.6000 INCHES
(E02104)	000000	0A-208	LARC	UPVT 1087 140 A/B 088	3.000	-11.700	54.920	.000	XREF 1076.7000 INCHES
(E02105)	000000	0A-208	LARC	UPVT 1087 140 A/B 088	.000	16.300	54.920	.000	YREF 0.0000 INCHES
(E02106)	000000	0A-208	LARC	UPVT 1087 140 A/B 088	.000	16.300	54.920	.000	ZREF 375.0000 INCHES
					.000	16.300	54.920	.000	SCALE .0150

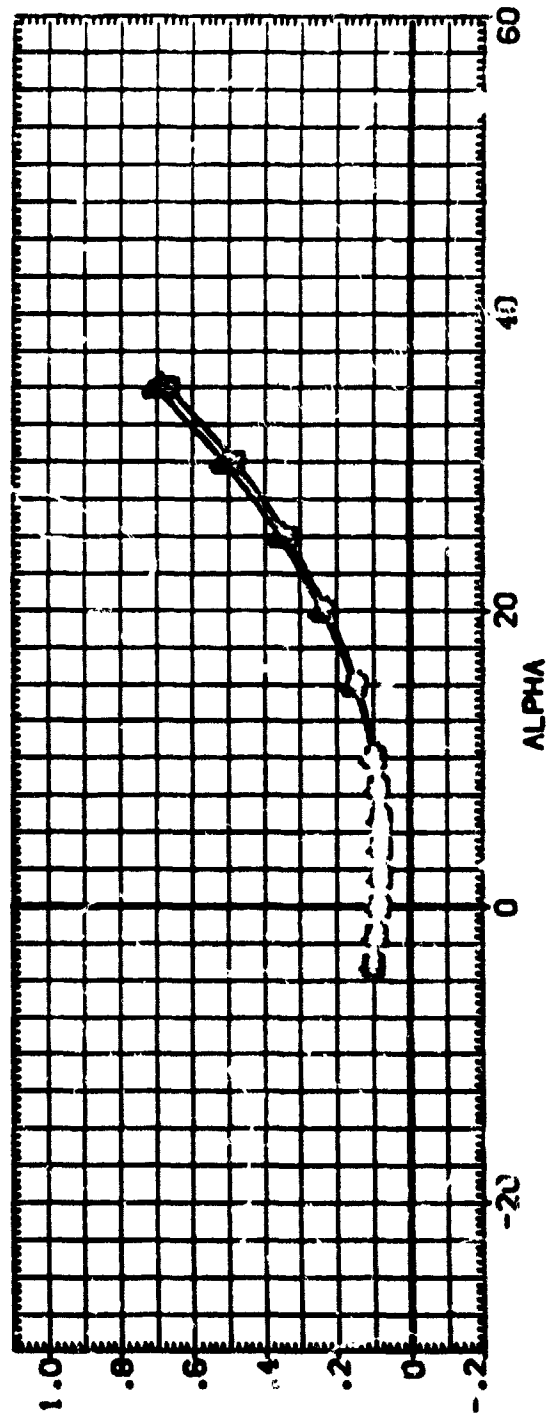
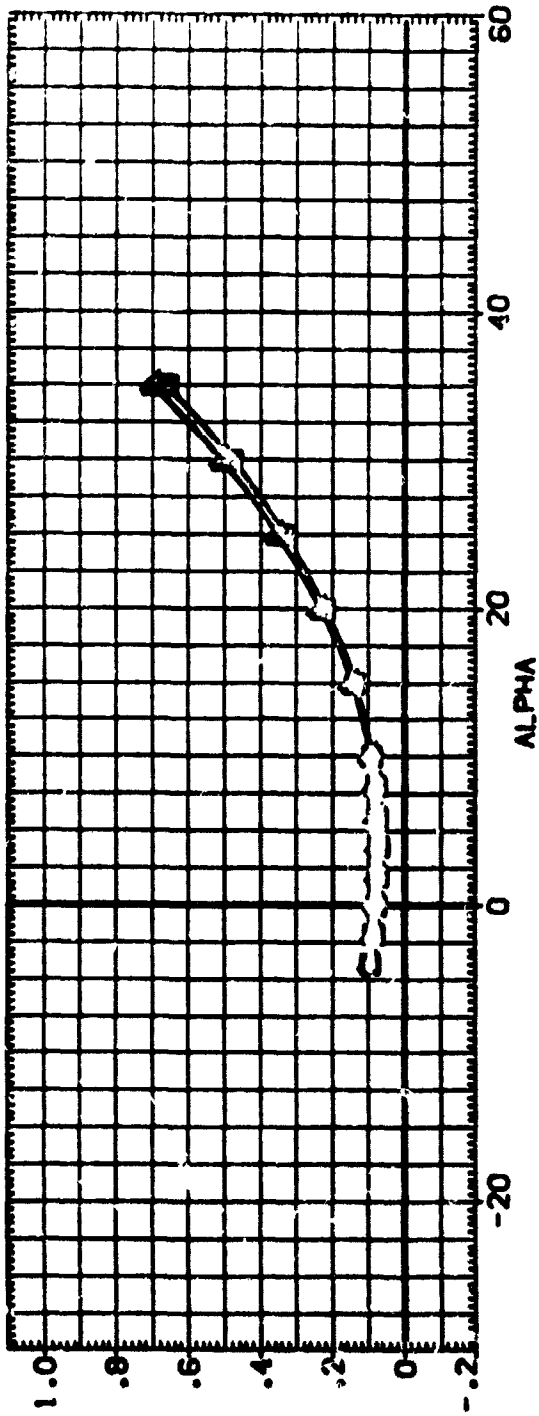


FIG. 6 STING AND NOZZLE TARES

(C)MACH = 4.63

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BOFLAP	SPDRBK	ELEVON	REFERENCE INFORMATION
(E02101)	GA-208 LARC UPVT 1087 140 A/B DBB +DUPPY STING	.000	-11.700	54.920	.000	SREF 2650.000J 50.0 FT.
(E02102)	GA-208 LARC UPVT 1087 140 A/B DBB +DUPPY STING	.000	-11.700	54.920	.000	LREF 1290.3000 INCHES
(E02103)	GA-208 LARC UPVT 1087 140 A/B DBB +DUPPY STING	.000	-11.700	54.920	.000	BREF 936.6300 INCHES
(E02104)	GA-208 LARC UPVT 1087 140 A/B DBB +DUPPY STING	.000	-11.700	54.920	.000	XREF 1076.7000 INCHES
(E02105)	GA-208 LARC UPVT 1087 140 A/B DBB +DUPPY STING	.000	-16.300	54.920	.000	YREF 375.0000 INCHES
						ZREF .0150 SCALE

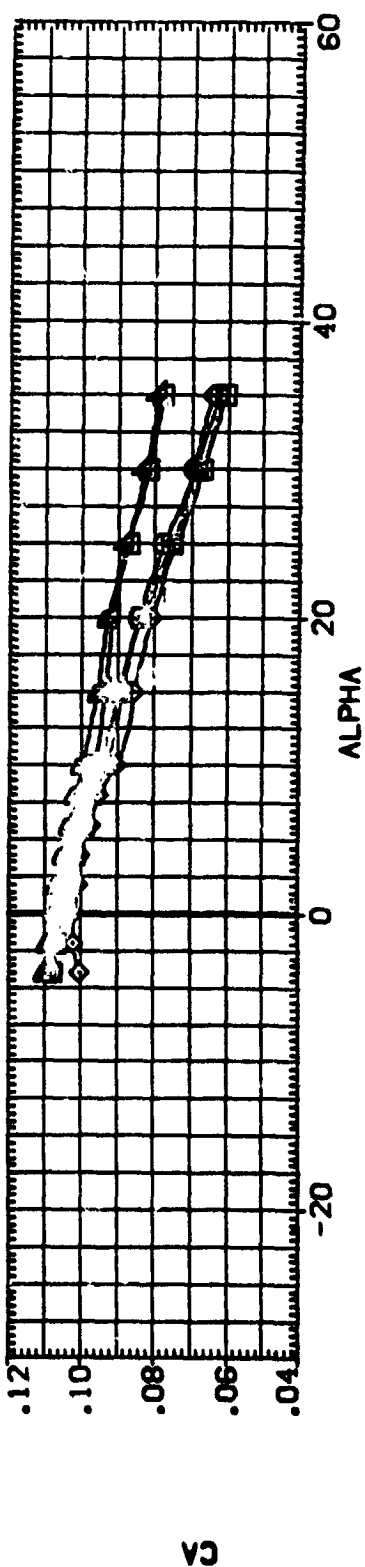
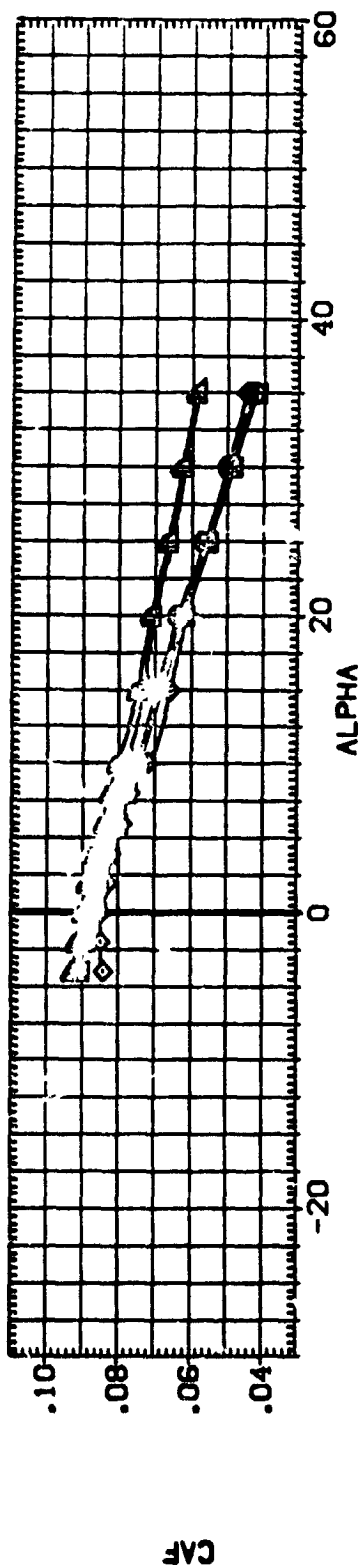
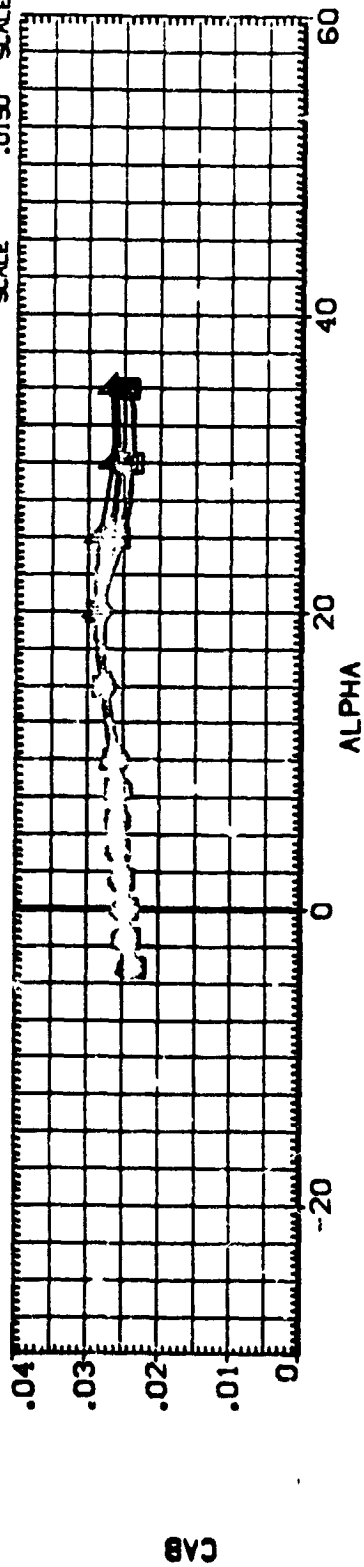


FIG. 6 STING AND NOZZLE TARES

(A)MACH = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BDFLAP	SPOBRK	ELEVON	REFERENCE INFORMATION
(E02101)	DA-208 LARC UPVT 1057 140 A/B 058 +DUMMY STING	.000	-11.700	54.920	.000	SREF 2690.0000 SQ.FT.
(E02102)	DA-208 LARC UPVT 1057 140 A/B 058	.000	-11.700	54.920	.000	LREF 1290.3000 INCHES
(E02103)	DA-208 LARC UPVT 1057 140 A/B 058 + DUMMY STING	3.000	-11.700	54.920	.000	BREF 936.0000 INCHES
(E02104)	DA-208 LARC UPVT 1057 140 A/B 058	3.000	-11.700	54.920	.000	XMPR 1076.7000 INCHES
(E02105)	DA-208 LARC UPVT 1057 140 A/B 058 +DUMMY STING	.000	16.300	54.920	.000	ZMPR 375.0000 INCHES
						SCALE .0150

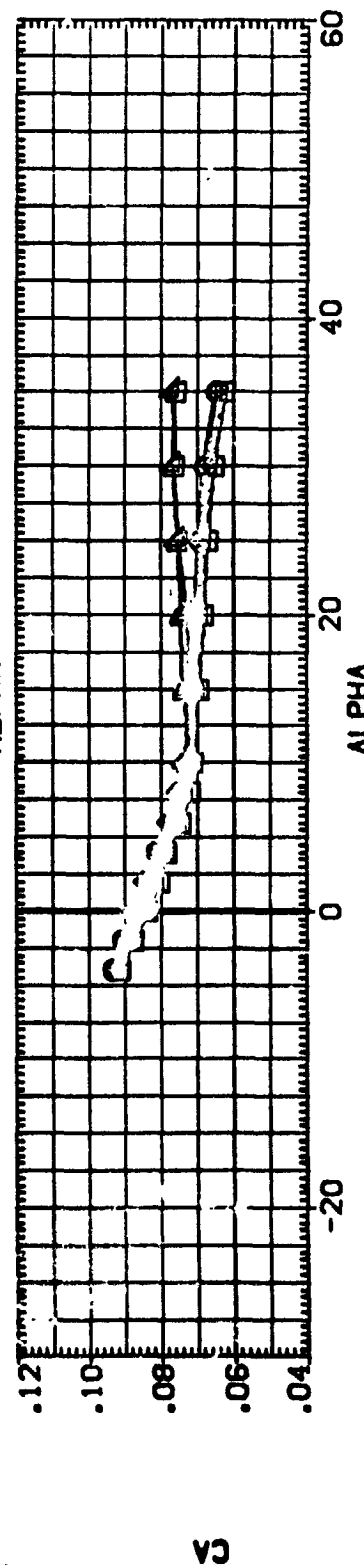
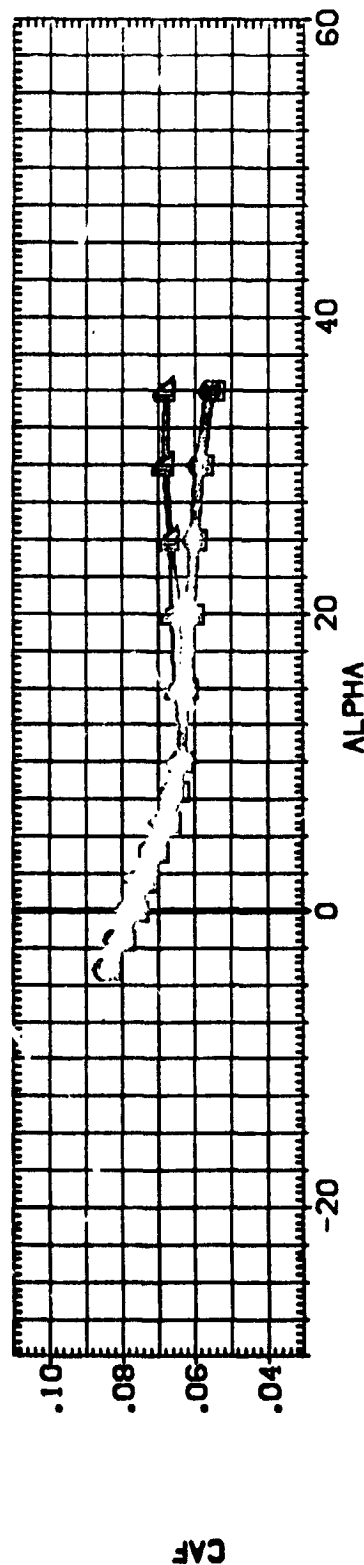
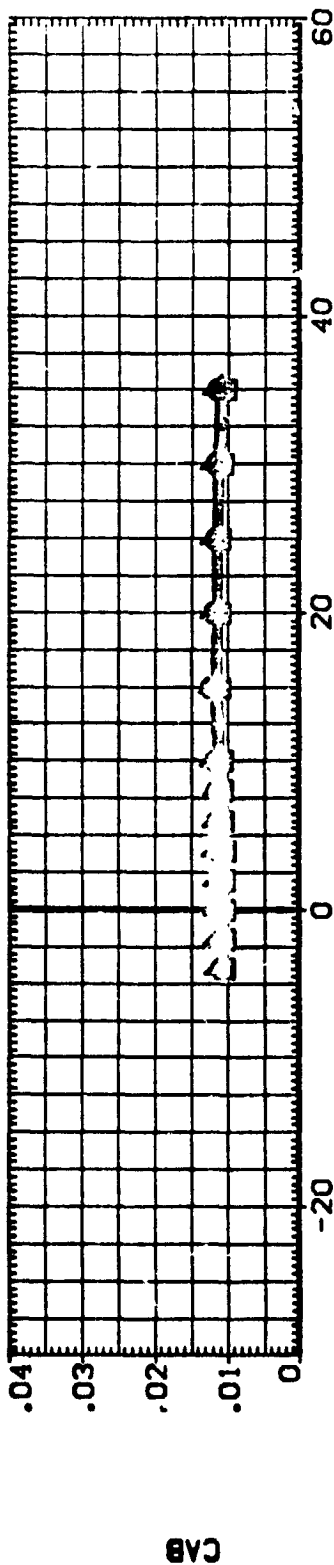


FIG. 6 STING AND NOZZLE TARES
(B)MACH = 3.95

DATA SET SYMBL.	CONFIGURATION DESCRIPTION	BETA	BOFLAP	SPDRK	ELEVON	REFERENCE INFORMATION
(EQ2101)	GA-208 LARC UPVT 1057 140 A/B DBB +DUMMY STING	.000	-11.700	54.520	.000	SREF 2690.0000 SQ.FT.
(EQ2102)	GA-208 LARC UPVT 1057 140 A/B DBB +DUMMY STING	.000	-11.700	54.520	.000	LREF 1290.3000 INCHES
(EQ2103)	GA-208 LARC UPVT 1057 140 A/B DBB +DUMMY STING	3.200	-11.700	54.520	.000	BREF 906.6900 INCHES
(EQ2104)	GA-208 LARC UPVT 1057 140 A/B DBB +DUMMY STING	.000	-11.700	54.520	.000	XREF 1076.7000 INCHES
(EQ2105)	GA-208 LARC UPVT 1057 140 A/B DBB +DUMMY STING	.000	16.300	54.520	.000	YREF 375.0000 INCHES
(EQ2106)	GA-208 LARC UPVT 1057 140 A/B DBB +DUMMY STING	.000	16.300	54.520	.000	ZREF 375.0000 INCHES
						SCALE .0150

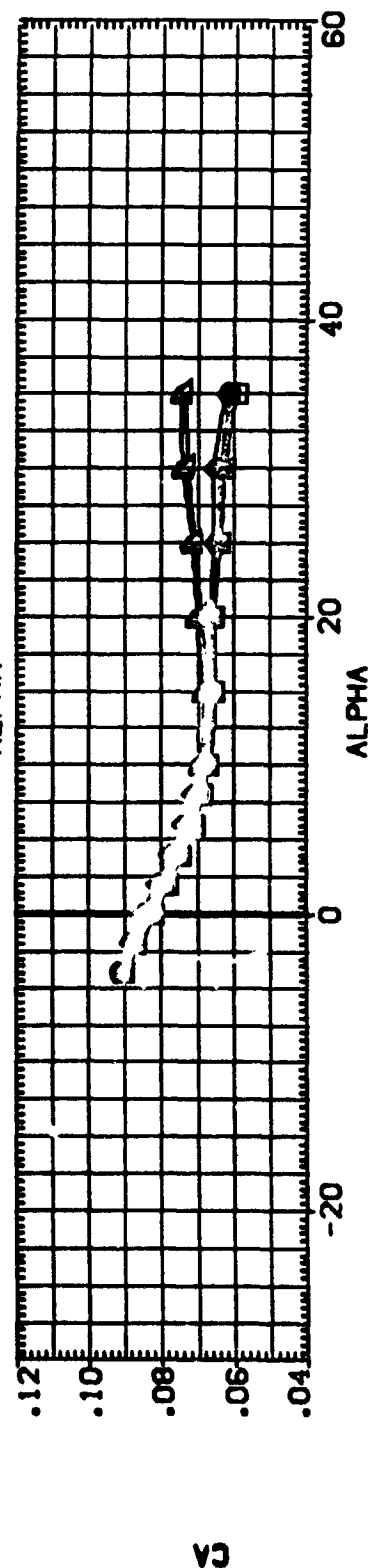
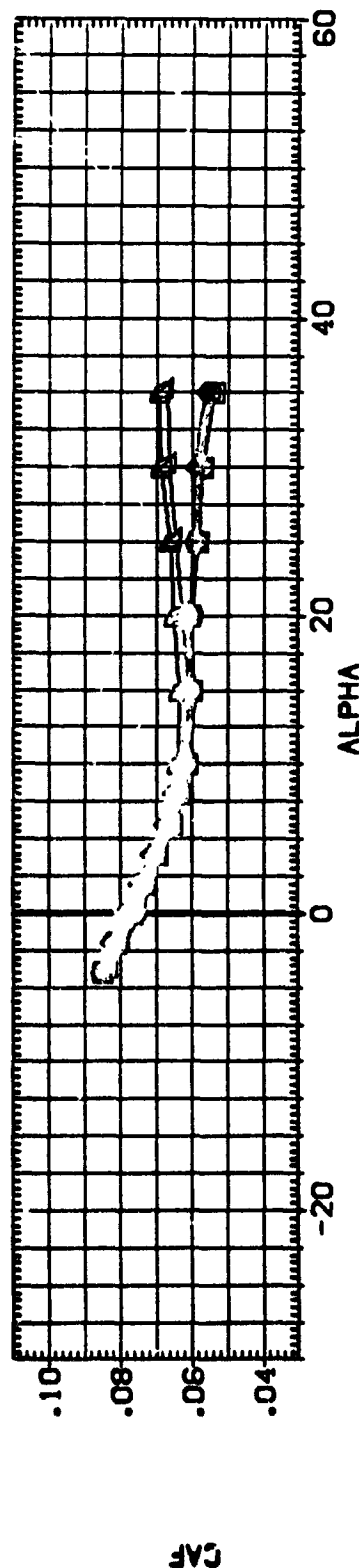
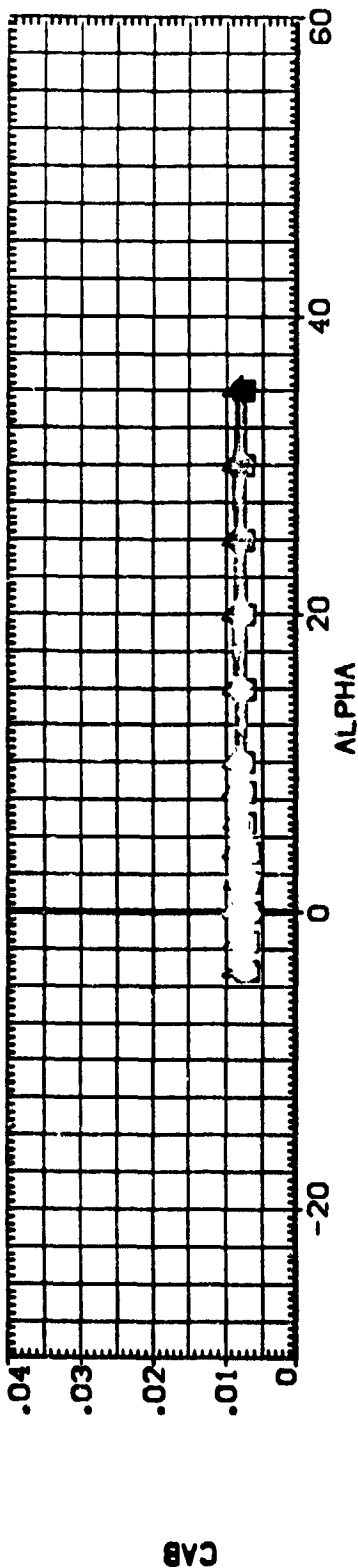


FIG. 6 STING AND NOZZLE TARES
(C)MACH - 4.63

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BDFLA°	SPDBRK	ELEVON	REFERENCE INFORMATION
(EQ2101)	DA-203 LARC UPVT 1057 140 A/B DB8	.000	-11.700	54.920	.000	SRF 2650.0000 SQ.FT.
(EQ2107)	DA-203 LARC UPVT 1057 140 A/B DB8	.000	-11.700	54.920	.000	LREF 1290.3000 INCHES
(EQ2102)	DA-203 LARC UPVT 1057 140 A/B DB8	3.000	-11.700	54.920	.000	SRF 936.6000 INCHES
(EQ2108)	DA-203 LARC UPVT 1057 140 A/B DB8	3.000	-11.700	54.920	.000	XPRP 1076.7000 INCHES
(EQ2103)	DA-203 LARC UPVT 1057 140 A/B DB8	.000	16.300	54.920	.000	YPRP 375.0000 INCHES
(EQ2103)	DA-203 LARC UPVT 1057 140 A/B DB8	.000	16.300	54.920	.000	ZPRP 375.0000 INCHES
						SCALE .0150

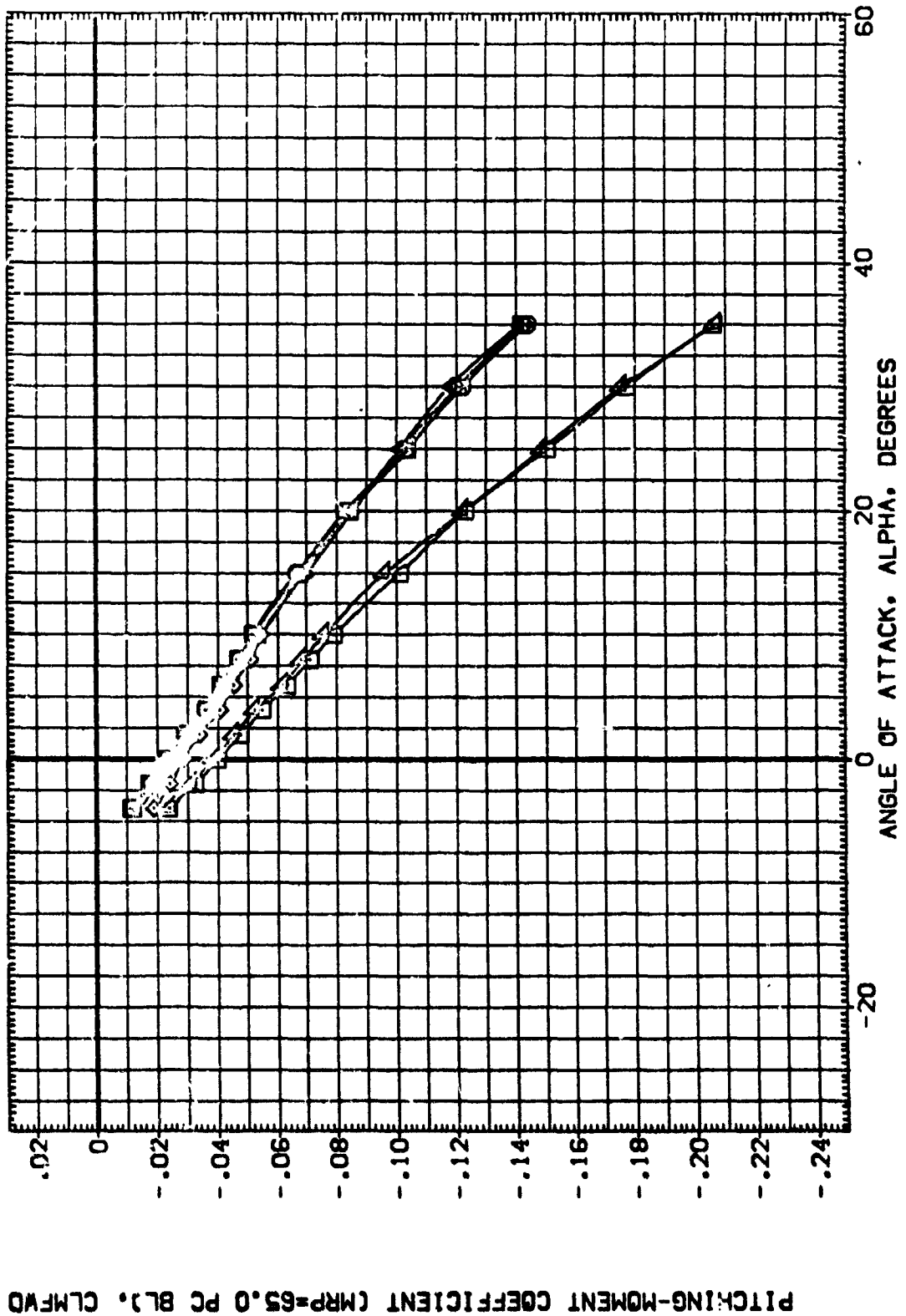


FIG. 6 STING AND NOZZLE TARES

(A)MACH = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BOFLAP	SPDBRK	ELEVON	REFERENCE INFORMATION
(E02101)	GA-208 LARC UPVT 1057 140 A/B DB8 + DUMMY STING	.000	-11.700	54.920	.000	SREF 2690.0000 SO.FT
(E02107)	GA-208 LARC UPVT 1057 140 A/B DB8 + DUMMY STING	.000	-11.700	54.920	.000	LREF 1290.3000 INCHES
(E02102)	GA-208 LARC UPVT 1057 140 A/B DB8 + DUMMY STING	3.000	-11.700	54.920	.000	BREF 936.5700 INCHES
(E02108)	GA-208 LARC UPVT 1057 140 A/B DB8 + DUMMY STING	3.000	-11.700	54.920	.000	XPRP 1076.7000 INCHES
(E02103)	GA-208 LARC UPVT 1057 140 A/B DB8 + DUMMY STING	.000	16.300	54.920	.000	YPRP .0000 INCHES
(E02109)	GA-208 LARC UPVT 1057 140 A/B DB8 + DUMMY STING	.000	16.300	54.920	.000	ZPRP 375.0000 INCHES
						SCALE .0150

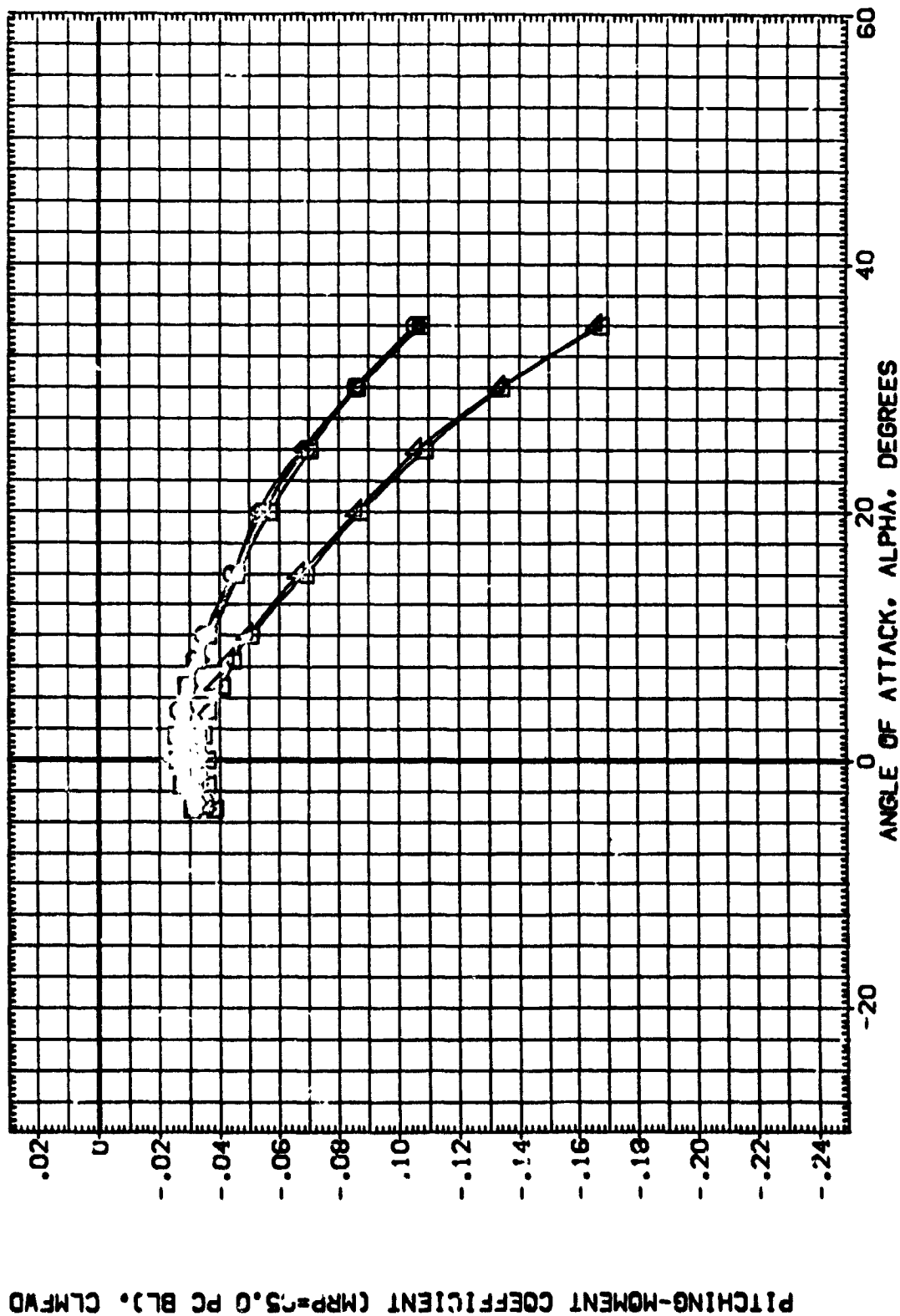


FIG. 6 STING AND NOZZLE TARES

(B)MACH = 3.95

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BDLAP	SPDRK	ELEVON	REFERENCE INFORMATION
(E02101)	DA-208 LARC UPVT 1097 140 A/B CR8 +DUMMY STING	.000	-11.700	54.920	.000	SREF 2690.0000 SO.FT.
(E02102)	DA-208 LARC UPVT 1097 140 A/B CR8 +DUMMY STING	.000	-11.700	54.920	.000	LREF 1290.3000 INCHES
(E02103)	DA-208 LARC UPVT 1097 140 A/B CR8 +DUMMY STING	3.000	-11.700	54.920	.000	BREF 936.6300 INCHES
(E02104)	DA-208 LARC UPVT 1097 140 A/B CR8 +DUMMY STING	3.000	-11.700	54.920	.000	YMRP 1075.7000 INCHES
(E02105)	DA-208 LARC UPVT 1097 140 A/B CR8 +DUMMY STING	.000	16.300	54.920	.000	ZMRP 375.0000 INCHES
						SCALE .0150

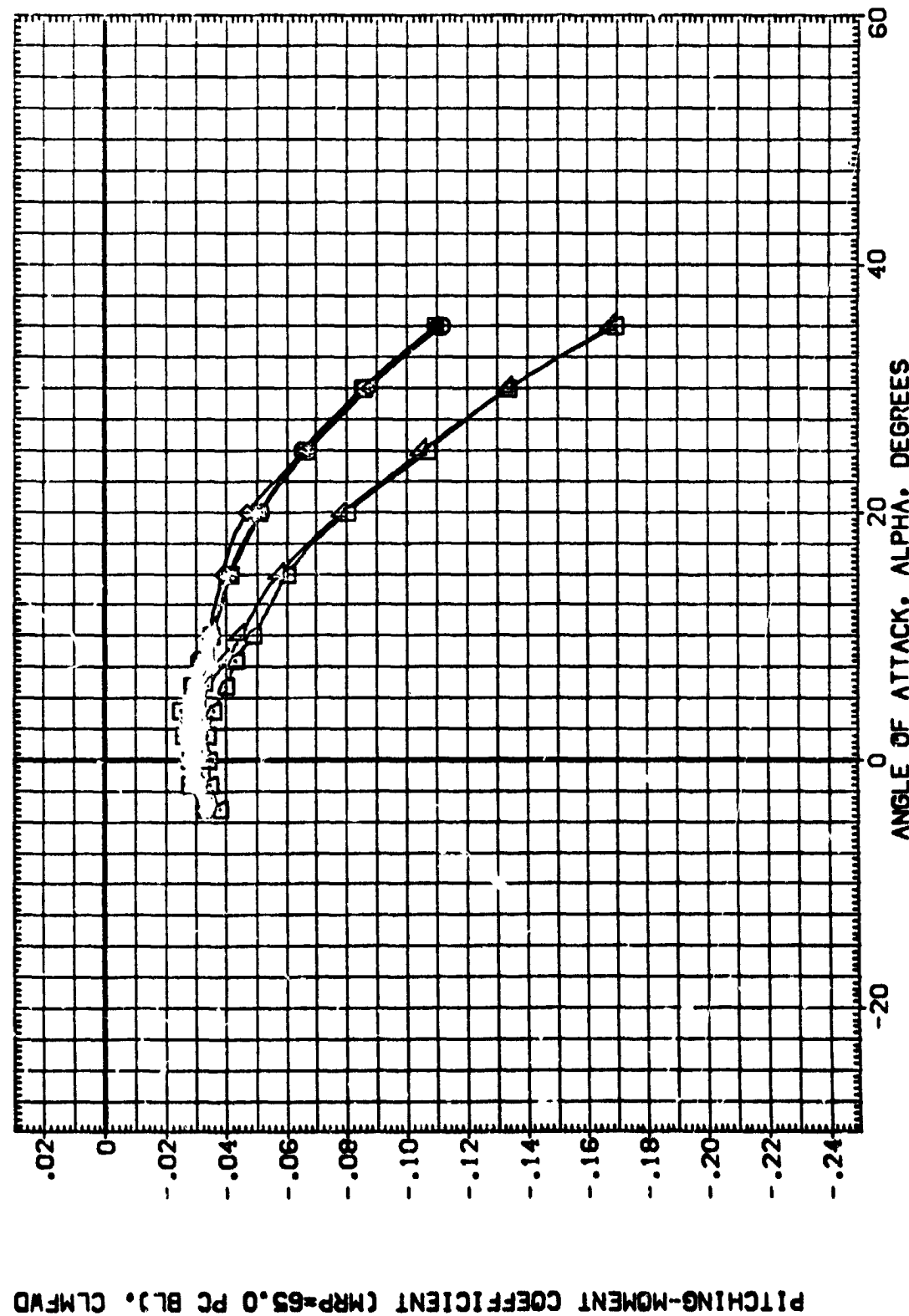
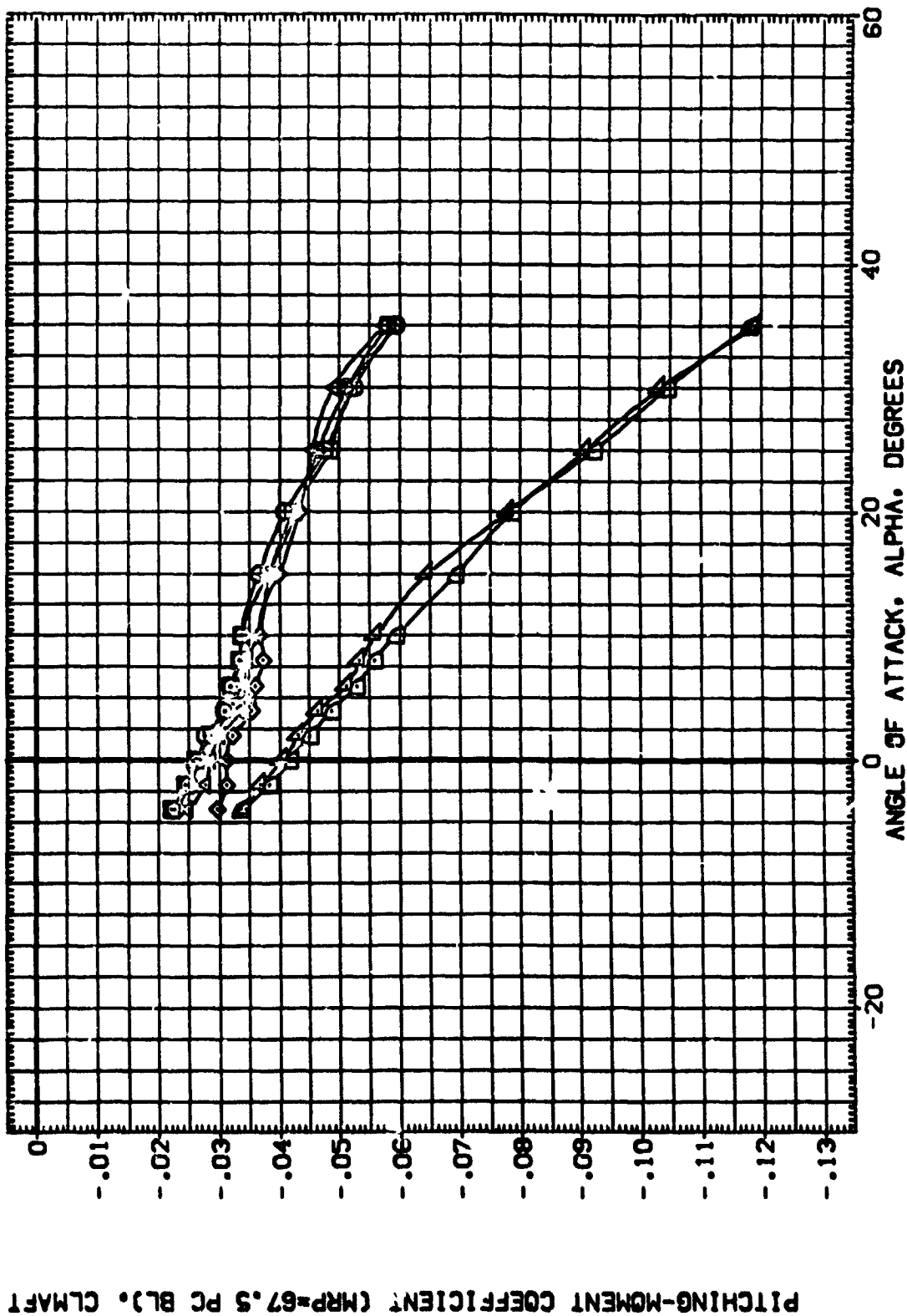


FIG. 6 STING AND NOZZLE TARES
(C)MACH = 4.63



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BD LAP	SPD SWK	ELEVON	REFERENCE INFORMATION
(E02101)	0A-208 LARC UPVT 1097 140 A/B DB	.000	11.700	54.920	.000	SREF 2690.0000 SQ.FT.
(E02107)	0A-208 LARC UPVT 1097 140 A/B DB	.000	11.700	54.920	.000	LREF 1290.3000 INCHES
(E02102)	0A-208 LARC UPVT 1097 140 A/B DB	3.000	-11.700	54.920	.000	BREF 936.8000 INCHES
(E02108)	0A-208 LARC UPVT 1097 140 A/B DB	3.000	-11.700	54.920	.000	XREF 1076.7000 INCHES
(E02103)	0A-208 LARC UPVT 1097 140 A/B DB	.000	16.300	54.920	.000	YREF .0000 INCHES
(E02104)	0A-208 LARC UPVT 1097 140 A/B DB	.000	16.300	54.920	.000	ZREF 375.0000 INCHES
						SCALE .0150



DATA SET SWED. CONFIGURATION DESCRIPTION

DATA SET	SWED.	CONFIGURATION	DESCRIPTION	BETA	BD FLAP	SPDRBK	ELEVON	REFERENCE INFORMATION
EDZ101	00470	0A-208	LARC LPVT 1087 140 A/B 088	.000	-11.700	54.920	.000	SREF 2690.0000 50.FT.
EDZ102	00470	0A-208	LARC LPVT 1087 140 A/B 088	.000	-11.700	54.920	.000	LREF 1290.3000 INCHES
EDZ103	00470	0A-208	LARC LPVT 1087 140 A/B 088	.000	-11.700	54.920	.000	BREF 936.6900 INCHES
EDZ104	00470	0A-208	LARC LPVT 1087 140 A/B 088	.000	-11.700	54.920	.000	XMRP 1076.7000 INCHES
EDZ105	00470	0A-208	LARC LPVT 1087 140 A/B 088	.000	-11.700	54.920	.000	YMRP .0000 INCHES
EDZ106	00470	0A-208	LARC LPVT 1087 140 A/B 088	.000	-11.700	54.920	.000	ZMRP 375.0000 INCHES
EDZ107	00470	0A-208	LARC LPVT 1087 140 A/B 088	.000	-11.700	54.920	.000	SCALE .0150

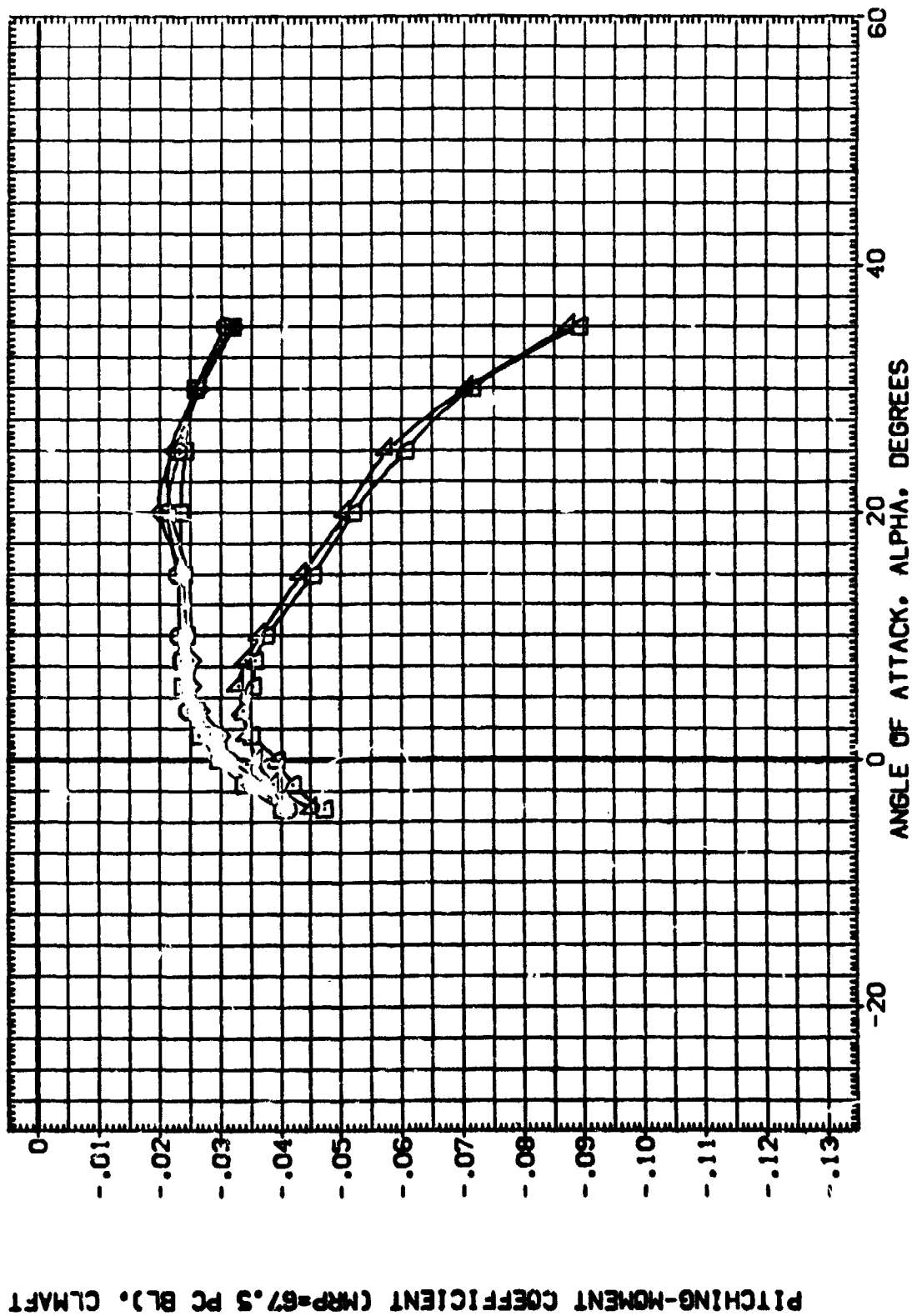


FIG. 6 STING AND NOZZLE TARES

(B)MACH = 3.95

DATA SET SPEED. CONFIGURATION DESCRIPTION

DATA SET	SPEED	CONFIGURATION	DESCRIPTION	BETA	ED/LAP	SP/OSBK	ELEVON	REFERENCE INFORMATION
(E02101)	0.00	0A-208	LARC UPAT 1087 140 A/B 0/8	.000	-11.700	54.920	.000	2690.0000 SQ.FT.
(E02102)	0.00	0A-208	LARC UPAT 1087 140 A/B 0/8	.000	-11.700	54.920	.000	1290.3000 INCHES
(E02103)	0.00	0A-208	LARC UPAT 1087 140 A/B 0/8	3.000	-11.700	54.920	.000	506.8600 INCHES
(E02104)	0.00	0A-208	LARC UPAT 1087 140 A/B 0/8	.000	-11.700	54.920	.000	1076.7000 INCHES
(E02105)	0.00	0A-208	LARC UPAT 1087 140 A/B 0/8	.000	-11.700	54.920	.000	375.0000 INCHES
(E02106)	0.00	0A-208	LARC UPAT 1087 140 A/B 0/8	.000	16.300	54.920	.000	SCALE .0150

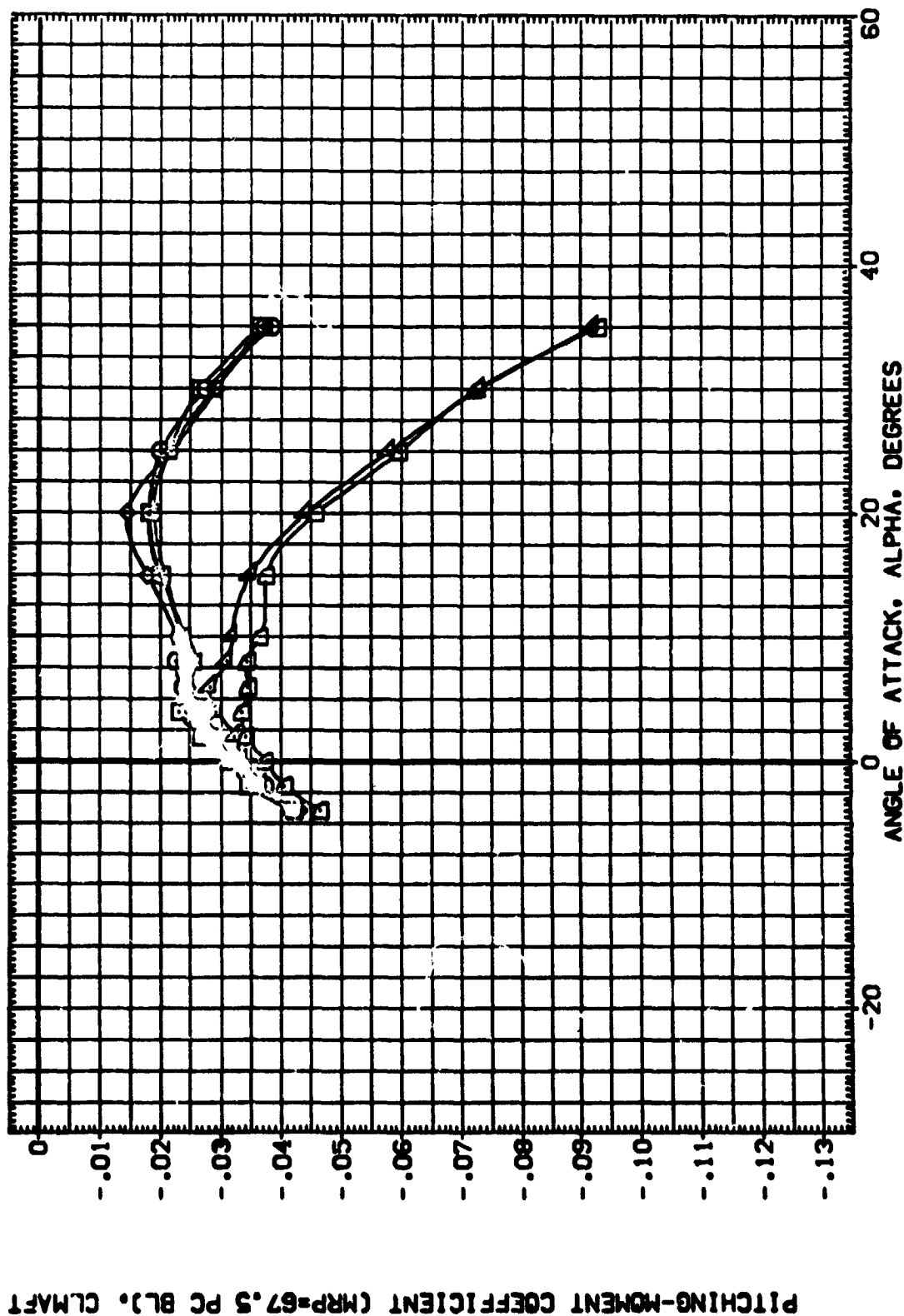


FIG. 6 STING AND NOZZLE TARES

(C)MACH = 4.63

DATA SET SNOB.	CONF	ISLATION	DESCRIPTION	BETA	REFLAP	SPOROK	ELEVON	REFERENCE INFORMATION
(E02101)	0A-203	LARC	UPVT 1057 140 A/B 000	0.000	-11.700	54.520	.000	REF 2650.0000 SQ.FT.
(E02102)	0A-203	LARC	UPVT 1057 140 A/B 000	0.000	-11.700	54.520	.000	LREF 1250.3000 INCHES
(E02103)	0A-203	LARC	UPVT 1057 140 A/B 000	3.000	-11.700	54.520	.000	BREF 5355.6000 INCHES
(E02104)	0A-203	LARC	UPVT 1057 140 A/B 000	3.000	-11.700	54.520	.000	WREF 1076.7000 INCHES
(E02105)	0A-203	LARC	UPVT 1057 140 A/B 000	0.000	16.300	54.520	.000	WREF 375.0000 INCHES
(E02106)	0A-203	LARC	UPVT 1057 140 A/B 000	0.000	16.300	54.520	.000	ZREF SCALE .0150

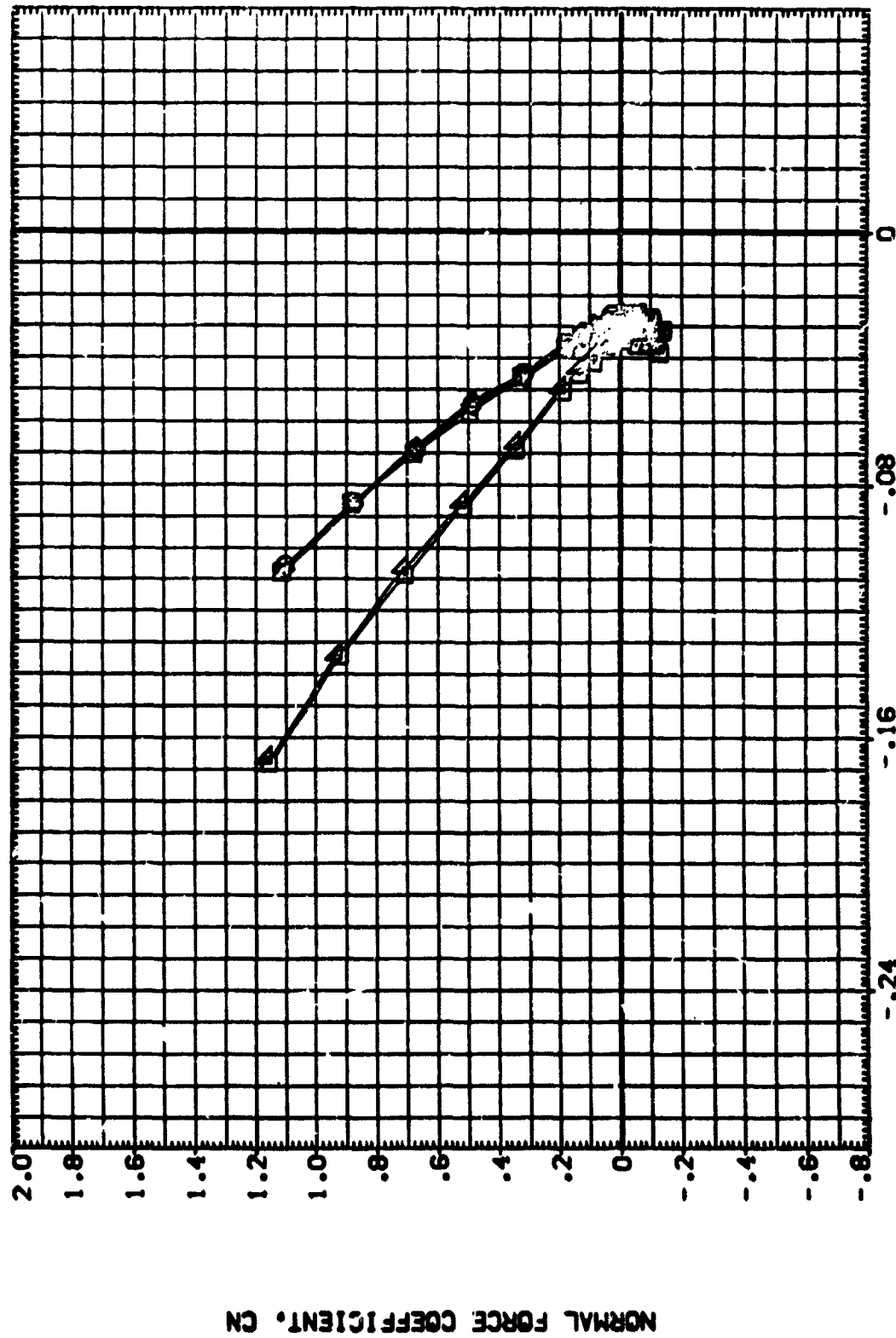


FIG. 6 STING AND NOZZLE TARES

(B)MACH = 3.95

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BDLAP	SPDRK	ELEVON	REFERENCE INFORMATION
(E02101)	BA-208 LARC UPVT 1087 140 A/B 088	.000	-11.700	54.820	.000	SREF 2650.0000 SQ.FT.
(E02102)	BA-208 LARC UPVT 1087 140 A/B 088	.000	-11.700	54.820	.000	LREF 1250.3000 INCHES
(E02103)	BA-208 LARC UPVT 1087 140 A/B 088	3.000	-11.700	54.820	.000	BREF 936.6800 INCHES
(E02104)	BA-208 LARC UPVT 1087 140 A/B 088	3.000	-11.700	54.820	.000	XHPP 1076.7000 INCHES
(E02105)	BA-208 LARC UPVT 1087 140 A/B 088	.000	16.300	54.820	.000	YHPP .0000 INCHES
(E02106)	BA-208 LARC UPVT 1087 140 A/B 088	.000	16.300	54.820	.000	ZHPP 375.0000 INCHES
						SCALE .0150

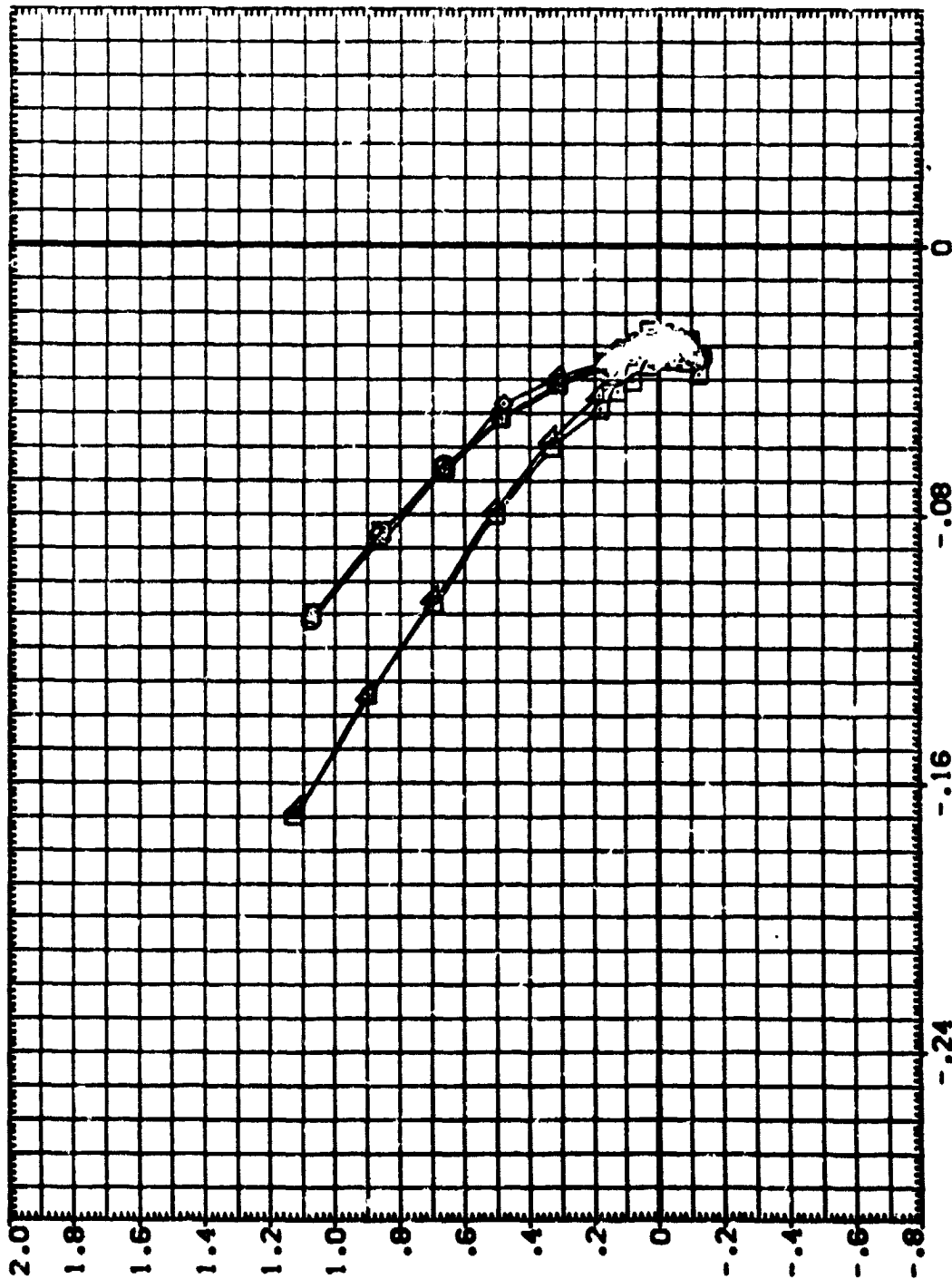


FIG. 6 STING AND NOZZLE TARES

(C)MACH = 4.63

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	EDFLAP	SPORK	ELEVON	REFERENCE INFORMATION
000101	0A-208 LANC LANC 1007 1007 1007 1007 1007 1007	0.000	11.700	54.500	0.000	REF 7500.0000 50 FT. 100ES
000102	0A-208 LANC LANC 1007 1007 1007 1007 1007 1007	0.000	11.700	54.500	0.000	LREF 1250.3000 100ES
000103	0A-208 LANC LANC 1007 1007 1007 1007 1007 1007	0.000	11.700	54.500	0.000	BREF 956.6800 100ES
000104	0A-208 LANC LANC 1007 1007 1007 1007 1007 1007	0.000	11.700	54.500	0.000	VRFP 1076.7000 100ES
000105	0A-208 LANC LANC 1007 1007 1007 1007 1007 1007	0.000	11.700	54.500	0.000	ZRFP 375.0000 100ES
000106	0A-208 LANC LANC 1007 1007 1007 1007 1007 1007	0.000	11.700	54.500	0.000	SCALE .0150 SCALE

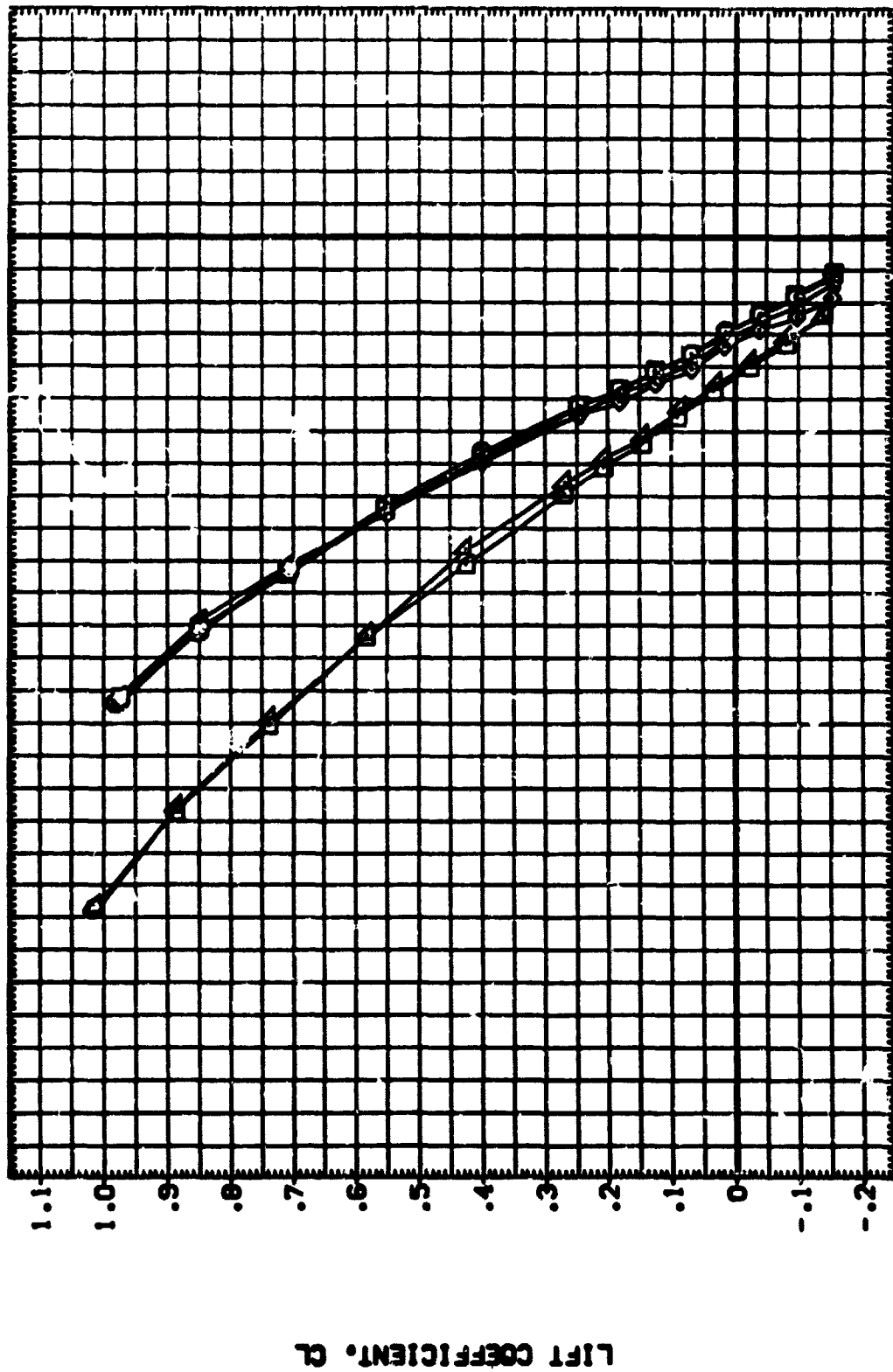


FIG. 6 STING AND NOZZLE TARES
(MACH = 2.50)

DATA SET	ORIG	CONF	DESCRIPTION	BETA	EDLAP	SPDRK	ELEVON	REFERENCE INFORMATION
(E02101)	0840	0840	0840	0.00	11.700	54.920	0.000	REF 2650.0000 90.00
(E02102)	0840	0840	0840	0.00	11.700	54.920	0.000	REF 1250.3000 100.00
(E02103)	0840	0840	0840	0.00	11.700	54.920	0.000	REF 936.6700 100.00
(E02104)	0840	0840	0840	0.00	11.700	54.920	0.000	REF 1076.7000 100.00
(E02105)	0840	0840	0840	0.00	11.700	54.920	0.000	REF 375.0000 100.00
(E02106)	0840	0840	0840	0.00	11.700	54.920	0.000	REF 375.0000 100.00
(E02107)	0840	0840	0840	0.00	11.700	54.920	0.000	REF 375.0000 100.00
(E02108)	0840	0840	0840	0.00	11.700	54.920	0.000	REF 375.0000 100.00
(E02109)	0840	0840	0840	0.00	11.700	54.920	0.000	REF 375.0000 100.00
(E02110)	0840	0840	0840	0.00	11.700	54.920	0.000	REF 375.0000 100.00
(E02111)	0840	0840	0840	0.00	11.700	54.920	0.000	REF 375.0000 100.00
(E02112)	0840	0840	0840	0.00	11.700	54.920	0.000	REF 375.0000 100.00
(E02113)	0840	0840	0840	0.00	11.700	54.920	0.000	REF 375.0000 100.00
(E02114)	0840	0840	0840	0.00	11.700	54.920	0.000	REF 375.0000 100.00
(E02115)	0840	0840	0840	0.00	11.700	54.920	0.000	REF 375.0000 100.00
(E02116)	0840	0840	0840	0.00	11.700	54.920	0.000	REF 375.0000 100.00
(E02117)	0840	0840	0840	0.00	11.700	54.920	0.000	REF 375.0000 100.00
(E02118)	0840	0840	0840	0.00	11.700	54.920	0.000	REF 375.0000 100.00
(E02119)	0840	0840	0840	0.00	11.700	54.920	0.000	REF 375.0000 100.00
(E02120)	0840	0840	0840	0.00	11.700	54.920	0.000	REF 375.0000 100.00
(E02121)	0840	0840	0840	0.00	11.700	54.920	0.000	REF 375.0000 100.00
(E02122)	0840	0840	0840	0.00	11.700	54.920	0.000	REF 375.0000 100.00
(E02123)	0840	0840	0840	0.00	11.700	54.920	0.000	REF 375.0000 100.00
(E02124)	0840	0840	0840	0.00	11.700	54.920	0.000	REF 375.0000 100.00
(E02125)	0840	0840	0840	0.00	11.700	54.920	0.000	REF 375.0000 100.00
(E02126)	0840	0840	0840	0.00	11.700	54.920	0.000	REF 375.0000 100.00
(E02127)	0840	0840	0840	0.00	11.700	54.920	0.000	REF 375.0000 100.00
(E02128)	0840	0840	0840	0.00	11.700	54.920	0.000	REF 375.0000 100.00
(E02129)	0840	0840	0840	0.00	11.700	54.920	0.000	REF 375.0000 100.00
(E02130)	0840	0840	0840	0.00	11.700	54.920	0.000	REF 375.0000 100.00
(E02131)	0840	0840	0840	0.00	11.700	54.920	0.000	REF 375.0000 100.00
(E02132)	0840	0840	0840	0.00	11.700	54.920	0.000	REF 375.0000 100.00
(E02133)	0840	0840	0840	0.00	11.700	54.920	0.000	REF 375.0000 100.00
(E02134)	0840	0840	0840	0.00	11.700	54.920	0.000	REF 375.0000 100.00
(E02135)	0840	0840	0840	0.00	11.700	54.920	0.000	REF 375.0000 100.00
(E02136)	0840	0840	0840	0.00	11.700	54.920	0.000	REF 375.0000 100.00
(E02137)	0840	0840	0840	0.00	11.700	54.920	0.000	REF 375.0000 100.00
(E02138)	0840	0840	0840	0.00	11.700	54.920	0.000	REF 375.0000 100.00
(E02139)	0840	0840	0840	0.00	11.700	54.920	0.000	REF 375.0000 100.00
(E02140)	0840	0840	0840	0.00	11.700	54.920	0.000	REF 375.0000 100.00
(E02141)	0840	0840	0840	0.00	11.700	54.920	0.000	REF 375.0000 100.00
(E02142)	0840	0840	0840	0.00	11.700	54.920	0.000	REF 375.0000 100.00
(E02143)	0840	0840	0840	0.00	11.700	54.920	0.000	REF 375.0000 100.00
(E02144)	0840	0840	0840	0.00	11.700	54.920	0.000	REF 375.0000 100.00
(E02145)	0840	0840	0840	0.00	11.700	54.920	0.000	REF 375.0000 100.00
(E02146)	0840	0840	0840	0.00	11.700	54.920	0.000	REF 375.0000 100.00
(E02147)	0840	0840	0840	0.00	11.700	54.920	0.000	REF 375.0000 100.00
(E02148)	0840	0840	0840	0.00	11.700	54.920	0.000	REF 375.0000 100.00
(E02149)	0840	0840	0840	0.00	11.700	54.920	0.000	REF 375.0000 100.00
(E02150)	0840	0840	0840	0.00	11.700	54.920	0.000	REF 375.0000 100.00

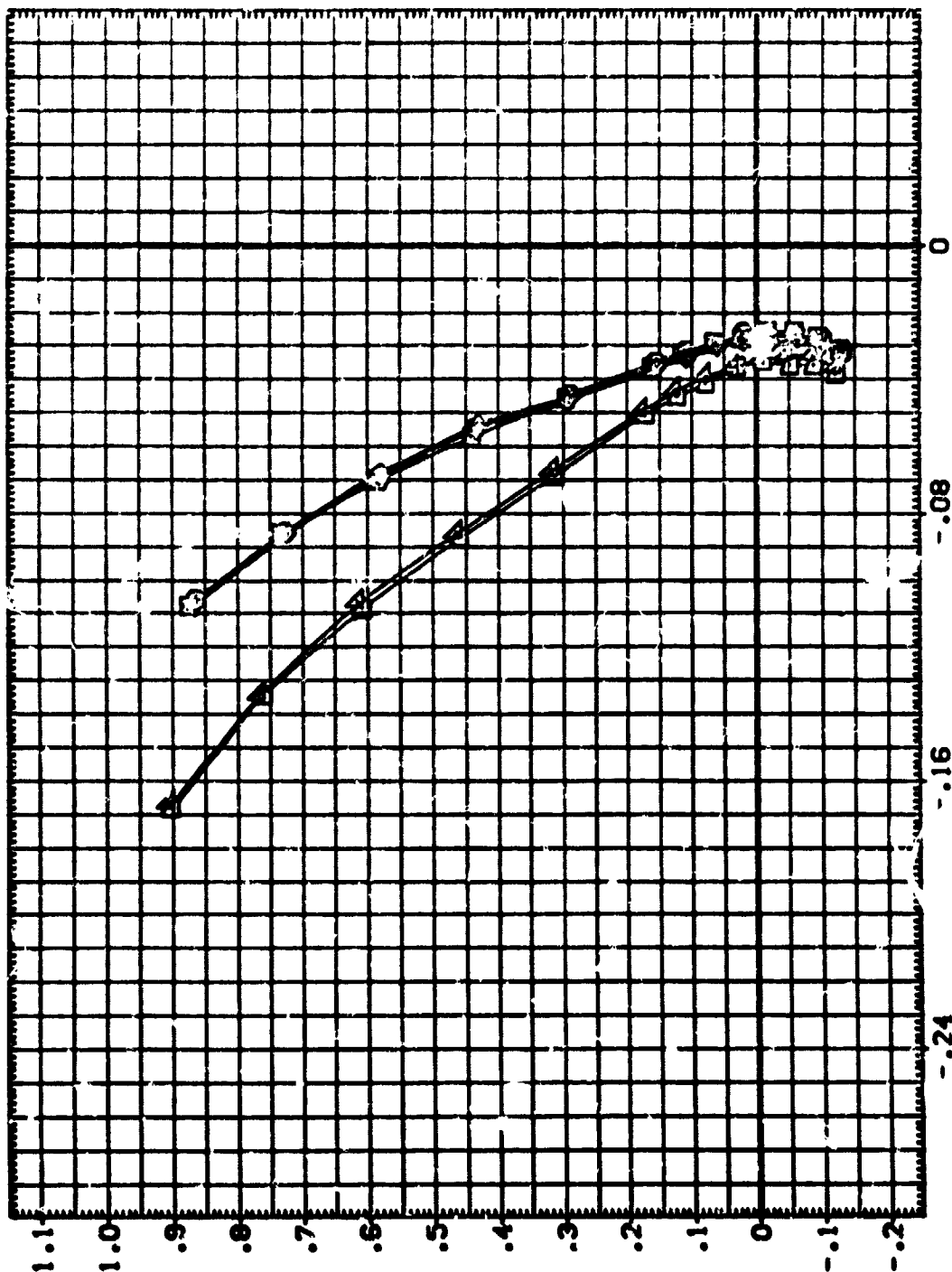


FIG. 6 STING AND NUZZLE TARES
(8)MACH = 3.95

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BDFLAP	SPDRK	ELEVON	REFERENCE INFORMATION
(E02101)	0A-208 LARC UPAT 1097 140 A/B 078	.000	-11.700	54.920	.000	SREF 2650.0000 SQ.FT.
(E02102)	0A-208 LARC UPAT 1097 140 A/B 078	.000	-11.700	54.920	.000	LREF 1290.3000 INCHES
(E02103)	0A-208 LARC UPAT 1097 140 A/B 078	3.000	-11.700	54.920	.000	BREF 936.6300 INCHES
(E02104)	0A-208 LARC UPAT 1097 140 A/B 078	.000	-11.700	54.920	.000	XMRP 1076.7000 INCHES
(E02105)	0A-208 LARC UPAT 1097 140 A/B 078	.000	16.300	54.920	.000	YMRP 0.000 INCHES
(E02106)	0A-208 LARC UPAT 1097 140 A/B 078	.000	16.300	54.920	.000	ZMRP 0.000 INCHES
						SCALE .0150

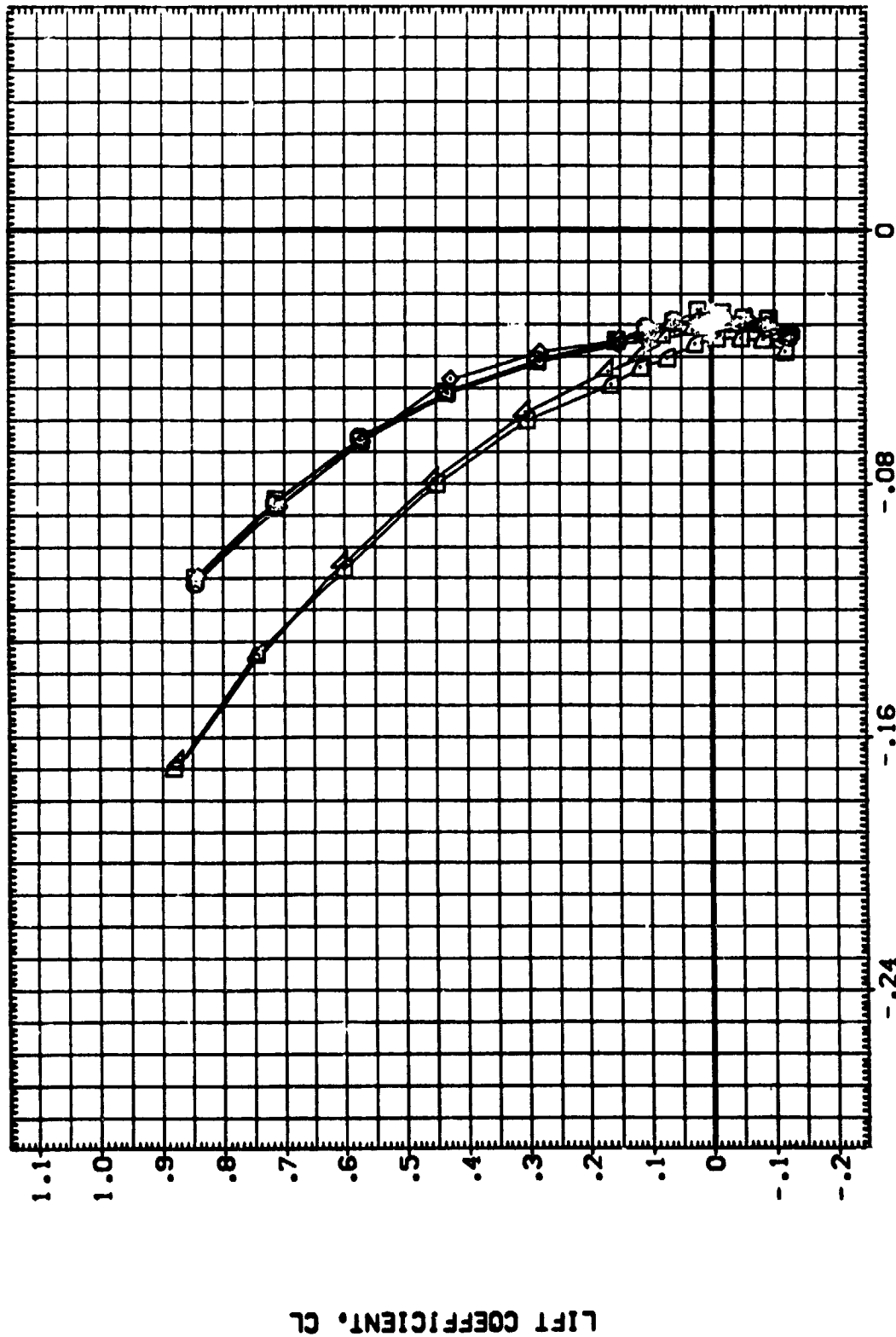


FIG. 6 STING AND NOZZLE TARES

(C)MACH = 4.63

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BOFLAP	SPOBRK	ELEVON	REFERENCE INFORMATION
[E02101]	0A-208 LARC UPVT 1057 140 A/B 098 +DUMMY STING	.000	-11.700	54.920	.000	SREF 2690.0000 SQ.FT.
[E02102]	0A-208 LARC UPVT 1057 140 A/B 098 +DUMMY STING	.000	-11.700	54.920	.000	LREF 1250.3000 INCHES
[E02103]	0A-208 LARC UPVT 1057 140 A/B 098 +DUMMY STING	3.000	-11.700	54.920	.000	BREF 936.6900 INCHES
[E02104]	0A-208 LARC UPVT 1057 140 A/B 098 +DUMMY STING	3.000	-11.700	54.920	.000	XMRP 1076.7000 INCHES
[E02105]	0A-208 LARC UPVT 1057 140 A/B 098 +DUMMY STING	.000	16.300	54.920	.000	YMRP 375.0000 INCHES
[E02106]	0A-208 LARC UPVT 1057 140 A/B 098 +DUMMY STING	.000	16.300	54.920	.000	ZMRP 375.0000 INCHES
						SCALE .0150

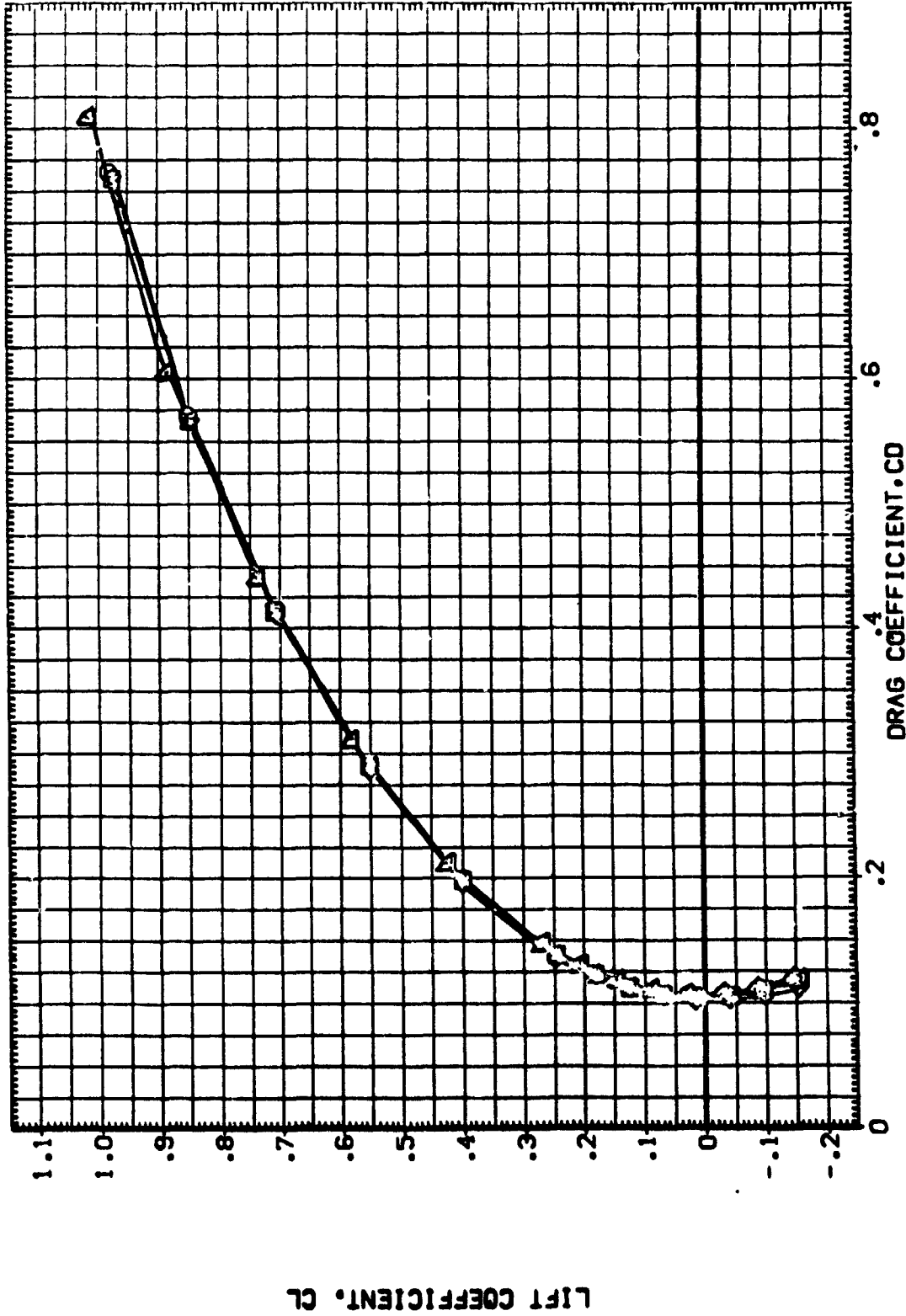


FIG. 6 STING AND NOZZLE TARES

(MACH = 2.50)



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BD FLAP	SPUWK	ELEVON	REFERENCE INFORMATION
(E02101)	DA-208 LARC UPVT 1097 140 A/B DBB	.000	-11.700	54.920	.000	SREF 2690.0000 SQ.FT.
(E02102)	DA-208 LARC UPVT 1097 140 A/B DBB	.000	-11.700	54.920	.000	LREF 1250.3000 INCHES
(E02103)	DA-208 LARC UPVT 1097 140 A/B DBB	3.000	-11.700	54.920	.000	BREF 933.6300 INCHES
(E02104)	DA-208 LARC UPVT 1097 140 A/B DBB	.000	-11.700	54.920	.000	XREF 1076.7000 INCHES
(E02105)	DA-208 LARC UPVT 1097 140 A/B DBB	.000	16.300	54.920	.000	YREF .0000 INCHES
(E02106)	DA-208 LARC UPVT 1097 140 A/B DBB	.000	16.300	54.920	.000	ZREF 375.0000 INCHES
						SCALE .0150

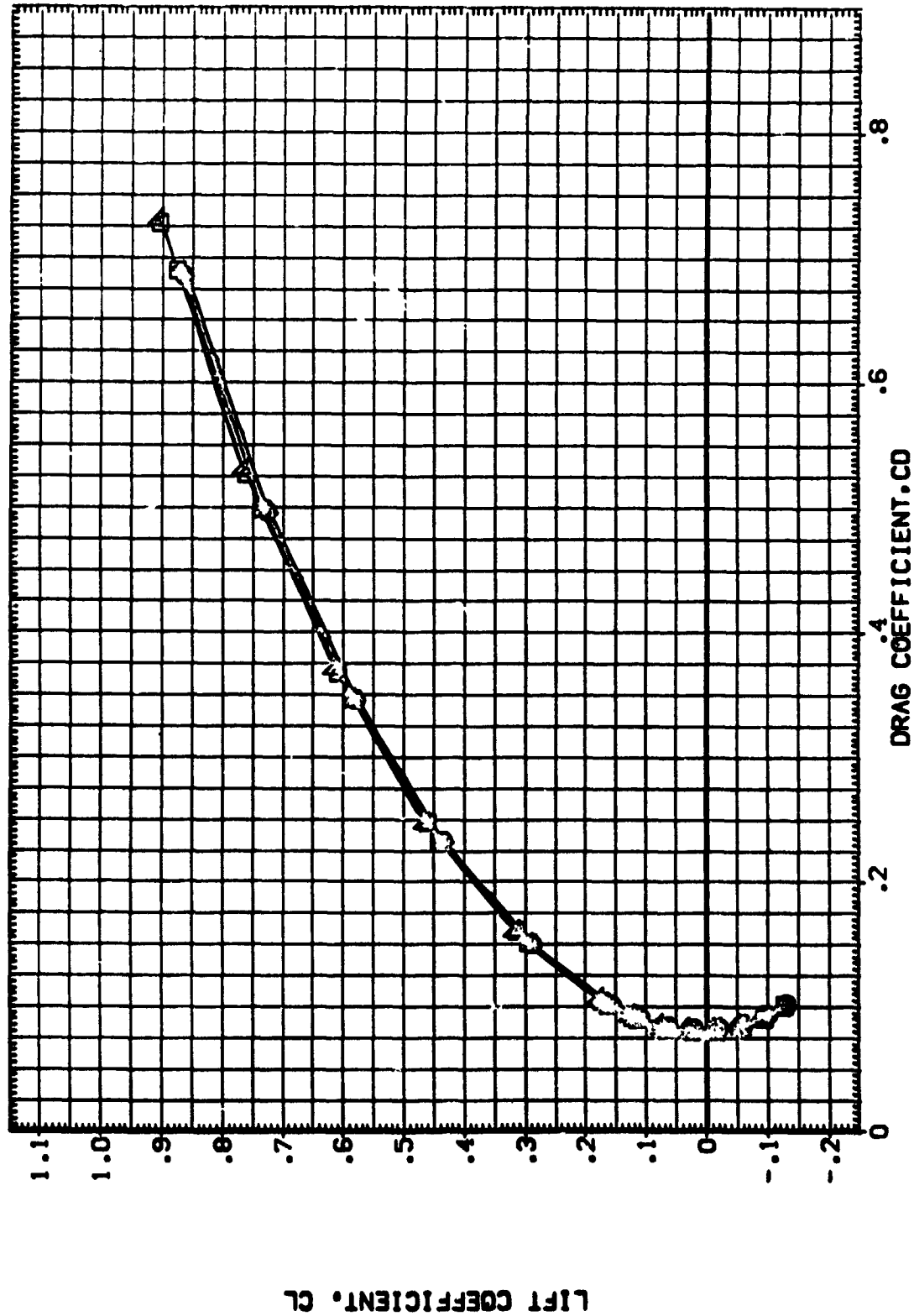


FIG. 6 STING AND NOZZLE TARES
(B)MACH = 3.95

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	REFLAP	SPUBRK	ELEVON	REFERENCE INFORMATION
(E02101)	BA-208 LARC LPVT 1057 140 A/B DBB +DUMMY STING	.000	-11.700	54.920	.000	SREF 2690.0000 SQ.FT.
(E02102)	BA-208 LARC LPVT 1057 140 A/B DBB +DUMMY STING	.000	-11.700	54.920	.000	LREF 1290.3000 INCHES
(E02103)	BA-208 LARC LPVT 1057 140 A/B DBB +DUMMY STING	3.000	-11.700	54.920	.000	BREF 936.6800 INCHES
(E02104)	BA-208 LARC LPVT 1057 140 A/B DBB +DUMMY STING	.000	16.300	54.920	.000	XREF 1076.7000 INCHES
(E02105)	BA-208 LARC LPVT 1057 140 A/B DBB +DUMMY STING	.000	16.300	54.920	.000	YREF 375.0000 INCHES
(E02106)	BA-208 LARC LPVT 1057 140 A/B DBB +DUMMY STING	.000	16.300	54.920	.000	ZREF .0150 SCALE

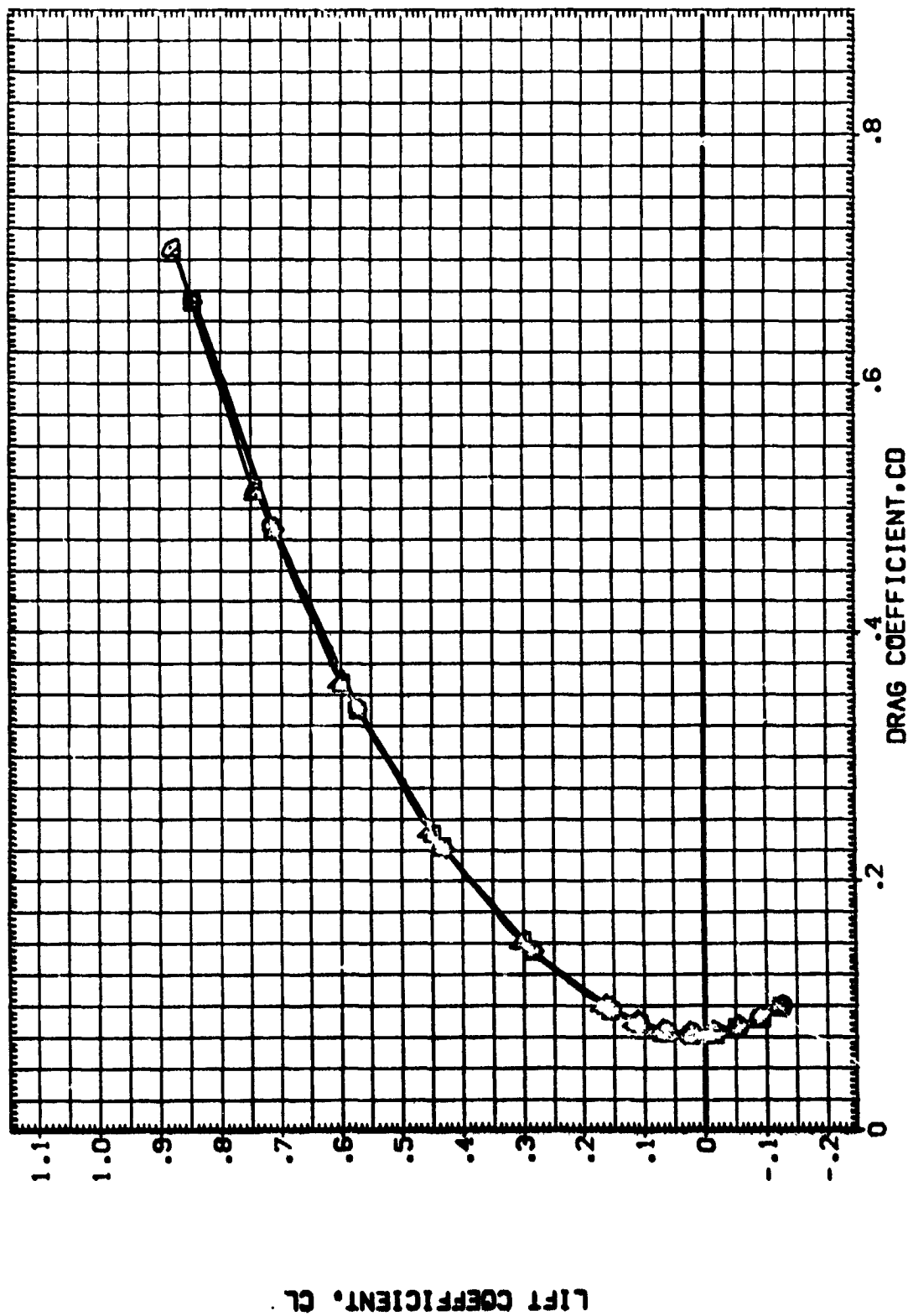


FIG. 6 STING AND NOZZLE TARES

(C)MACH = 4.63



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BD FLAP	SPD BRK	ELEVON	REFERENCE INFORMATION
[F02101]	DA-208 LARC UPVT 1057 140 A/B 008 +DUPPY STING	.000	-11.700	54.920	.000	SREF 2690.0000 SQ.FT.
[F02102]	DA-208 LARC UPVT 1057 140 A/B 008 +DUPPY STING	.000	-11.700	54.920	.000	LREF 1230.3000 INCHES
[F02103]	DA-208 LARC UPVT 1057 140 A/B 008 +DUPPY STING	3.000	-11.700	54.920	.000	BREF 955.6000 INCHES
[F02104]	DA-208 LARC UPVT 1057 140 A/B 008 +DUPPY STING	3.000	-11.700	54.920	.000	XREF 1076.7000 INCHES
[F02105]	DA-208 LARC UPVT 1057 140 A/B 008 +DUPPY STING	.000	16.300	54.920	.000	YREF .0000 INCHES
[F02106]	DA-208 LARC UPVT 1057 140 A/B 008 +DUPPY STING	.000	16.300	54.920	.000	ZREF 375.0000 INCHES
						SCALE .0150

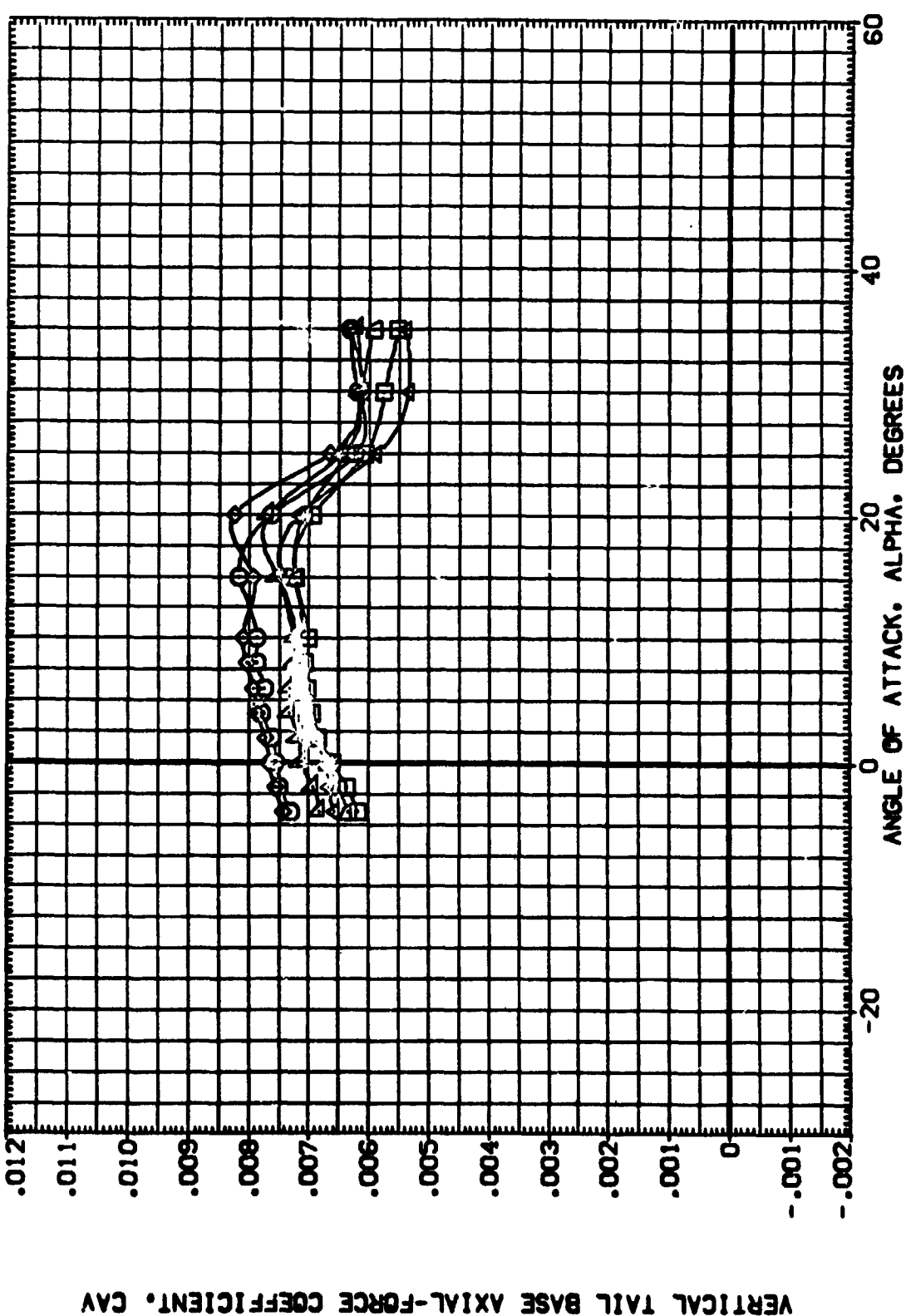


FIG. 6 STING AND NOZZLE TARES

(A)MACH = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BOFLAP	SPDRK	ELEVON	REFERENCE INFORMATION
(F02101)	DA-208 LARC UPVT 1057 140 A/B DBB +DUMMY STING	.000	-11.700	54.520	.000	SREF 2690.0000 SQ.FT.
(F02102)	DA-208 LARC UPVT 1057 140 A/B DBB +DUMMY STING	.000	-11.700	54.520	.000	LREF 1250.3000 INCHES
(F02103)	DA-208 LARC UPVT 1057 140 A/B DBB +DUMMY STING	3.000	-11.700	54.520	.000	BREF 936.6000 INCHES
(F02104)	DA-208 LARC UPVT 1057 140 A/B DBB +DUMMY STING	3.000	-11.700	54.520	.000	XMRP 1076.7000 INCHES
(F02105)	DA-208 LARC UPVT 1057 140 A/B DBB +DUMMY STING	.000	16.300	54.520	.000	ZMRP .0000 INCHES
(F02106)	DA-208 LARC UPVT 1057 140 A/B DBB +DUMMY STING	.000	16.300	54.520	.000	SCALE .0150

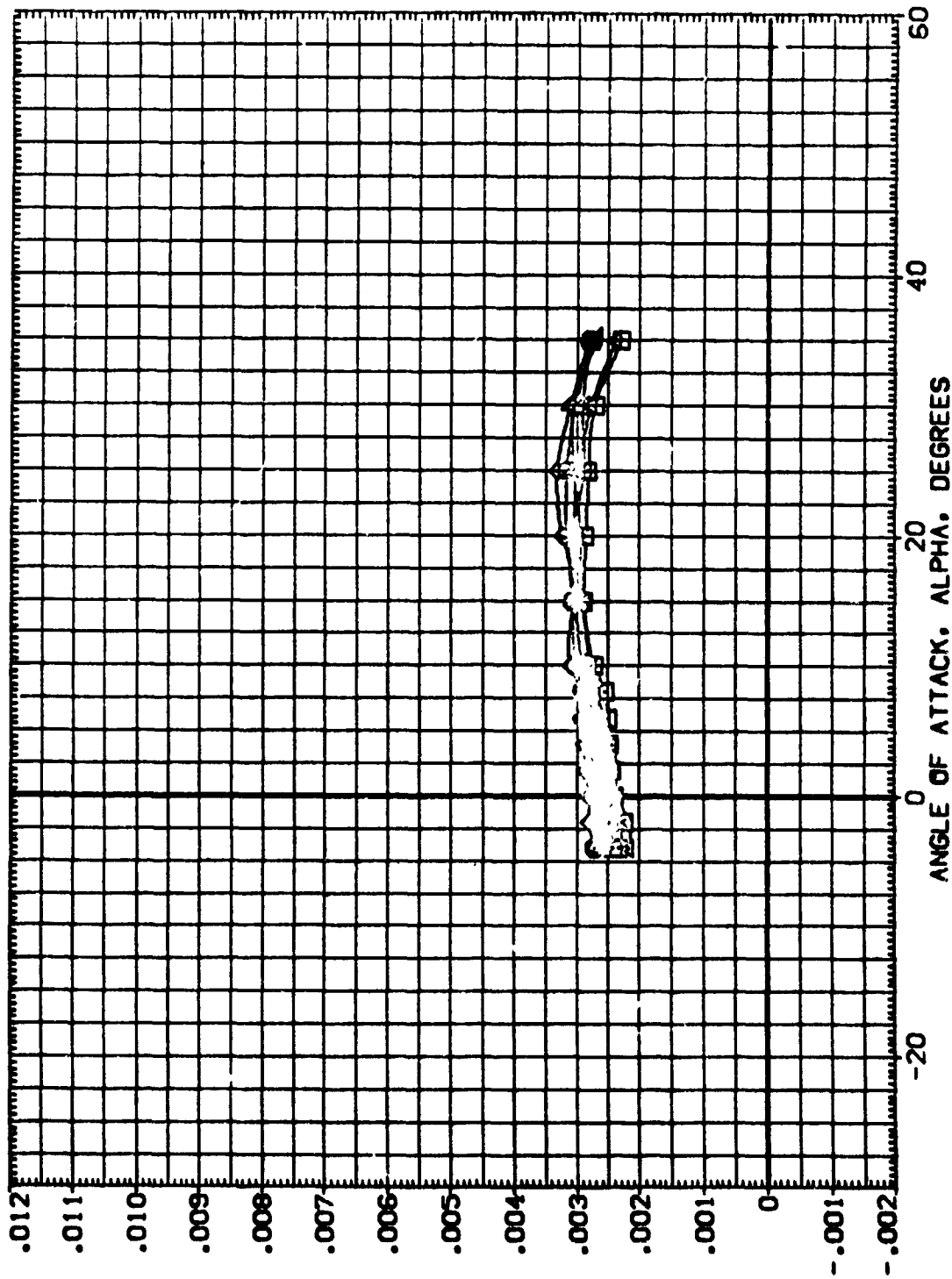


FIG. 6 STING AND NOZZLE TARES

(B)MACH = 3.95

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BD FLAP	SPD BRK	ELEVON	REFERENCE INFORMATION
(F02101)	GA-208 LARC UPVT 1057 140 A/B DBS	.000	-11.700	54.520	.000	SREF 2530.0000 50. FT.
(F02102)	GA-208 LARC UPVT 1057 140 A/B DBS	.000	-11.700	54.520	.000	LREF 1230.3000 INCHES
(F02103)	GA-208 LARC UPVT 1057 140 A/B DBS	3.000	-11.700	54.520	.000	BREF 936.6300 INCHES
(F02104)	GA-208 LARC UPVT 1057 140 A/B DBS	3.000	-11.700	54.520	.000	XREF 1076.7000 INCHES
(F02105)	GA-208 LARC UPVT 1057 140 A/B DBS	.000	16.300	54.520	.000	YREF 375.0000 INCHES
(F02106)	GA-208 LARC UPVT 1057 140 A/B DBS	.000	16.300	54.520	.000	ZREF 375.0000 INCHES
						SCALE .0150

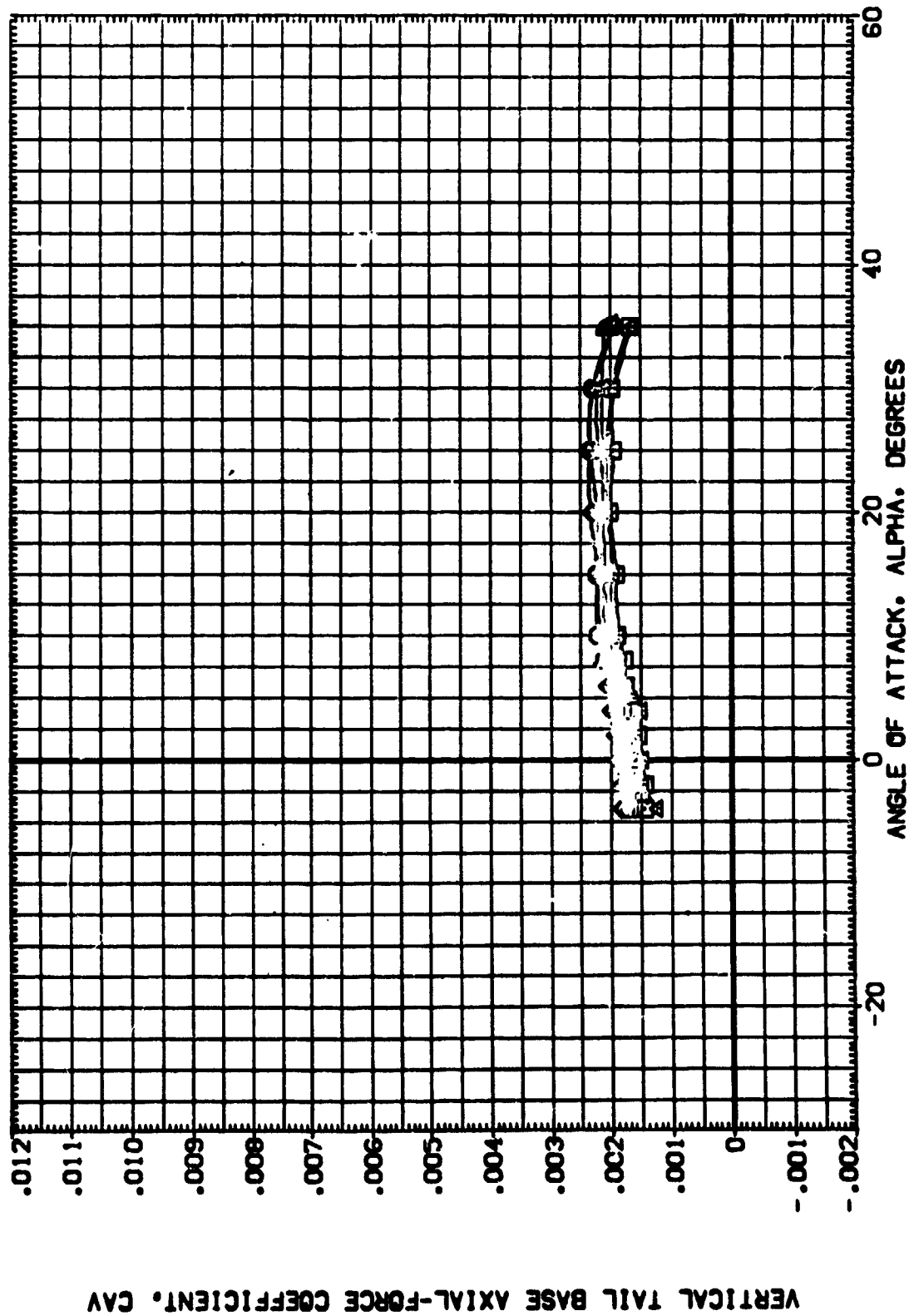


FIG. 6 STING AND NOZZLE TARES

(C)MACH = 4.63

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BOFLAP	SFOBRK	ELEVON	REFERENCE INFORMATION
(F02101)	0A-208 LARC UPVT 1057 140 A/B DBB + DUMMY STING	.000	-11.700	54.920	.000	SREF 2650.0000 SQ.FT.
(F02102)	0A-208 LARC UPVT 1057 140 A/B DBB + DUMMY STING	.000	-11.700	54.920	.000	LREF 1250.3000 INCHES
(F02103)	0A-208 LARC UPVT 1057 140 A/B DBB + DUMMY STING	3.000	-11.700	54.920	.000	BREF 936.6800 INCHES
(F02104)	0A-208 LARC UPVT 1057 140 A/B DBB + DUMMY STING	3.000	-11.700	54.920	.000	XREF 1076.7000 INCHES
(F02105)	0A-208 LARC UPVT 1057 140 A/B DBB + DUMMY STING	.000	16.300	54.920	.000	YREF 375.0000 INCHES
(F02106)	0A-208 LARC UPVT 1057 140 A/B DBB + DUMMY STING	.000	16.300	54.920	.000	ZREF .0150 SCALE

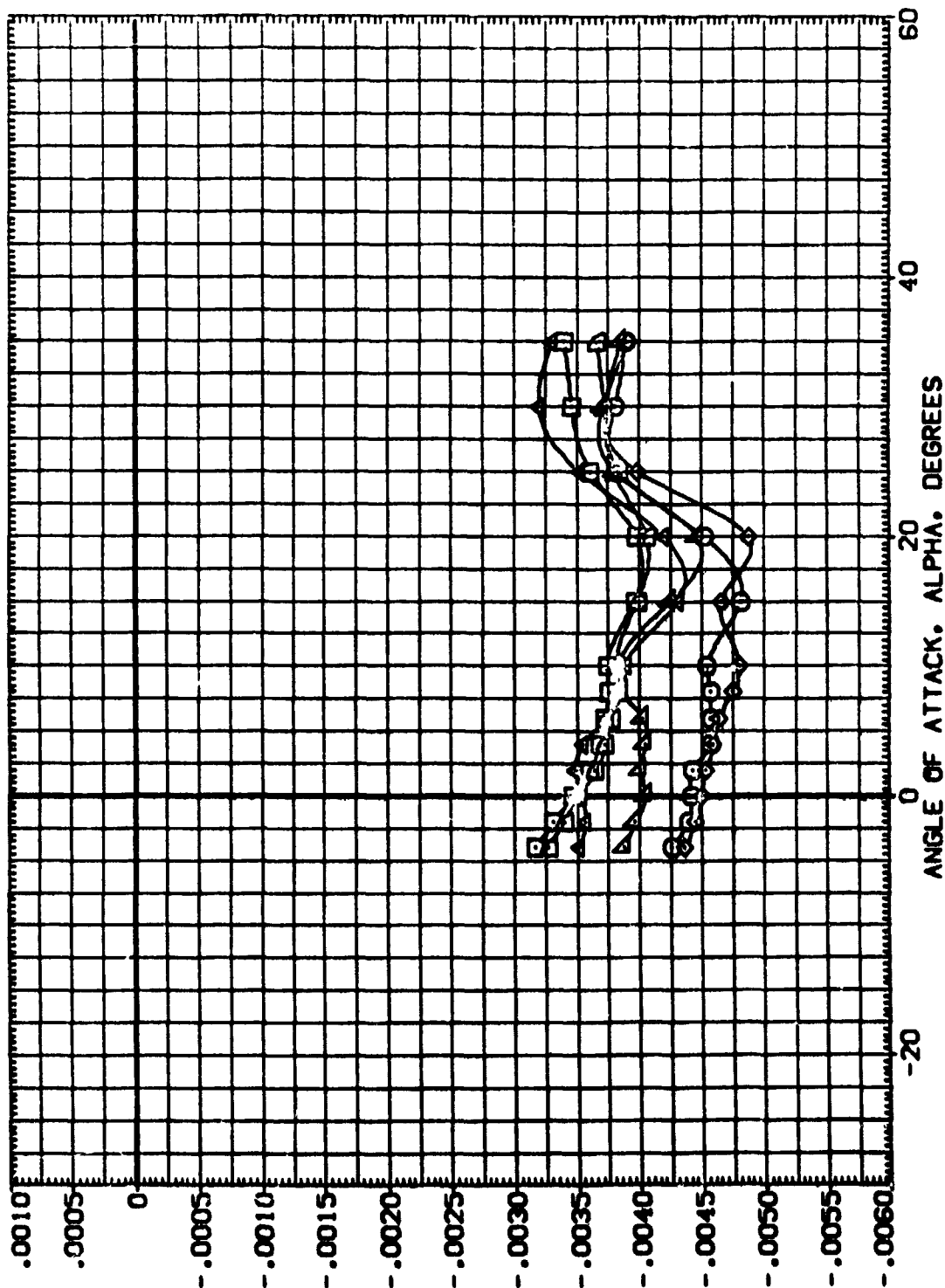


FIG. 6 STING AND NOZZLE TARES

(A)MACH = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BD FLAP	SPD BRK	ELEVON	REFERENCE INFORMATION
(F02101)	0A-208 LARC UPVT 1057 140 A/B 058 +DUPPY STING	.000	-11.700	54.920	.000	SREF 2690.0000 SO.FT.
(F02102)	0A-208 LARC UPVT 1057 140 A/B 058 +DUPPY STING	.000	-11.700	54.920	.000	LREF 1290.3000 INCHES
(F02103)	0A-208 LARC UPVT 1057 140 A/B 058 +DUPPY STING	3.000	-11.700	54.920	.000	SREF 936.6300 INCHES
(F02104)	0A-208 LARC UPVT 1057 140 A/B 058 +DUPPY STING	3.000	-11.700	54.920	.000	XREF 1076.7000 INCHES
(F02105)	0A-208 LARC UPVT 1057 140 A/B 058 +DUPPY STING	.000	16.300	54.920	.000	YREF 375.0000 INCHES
(F02106)	0A-208 LARC UPVT 1057 140 A/B 058 +DUPPY STING	.000	16.300	54.920	.000	ZREF 375.0000 INCHES
						SCALE .0150

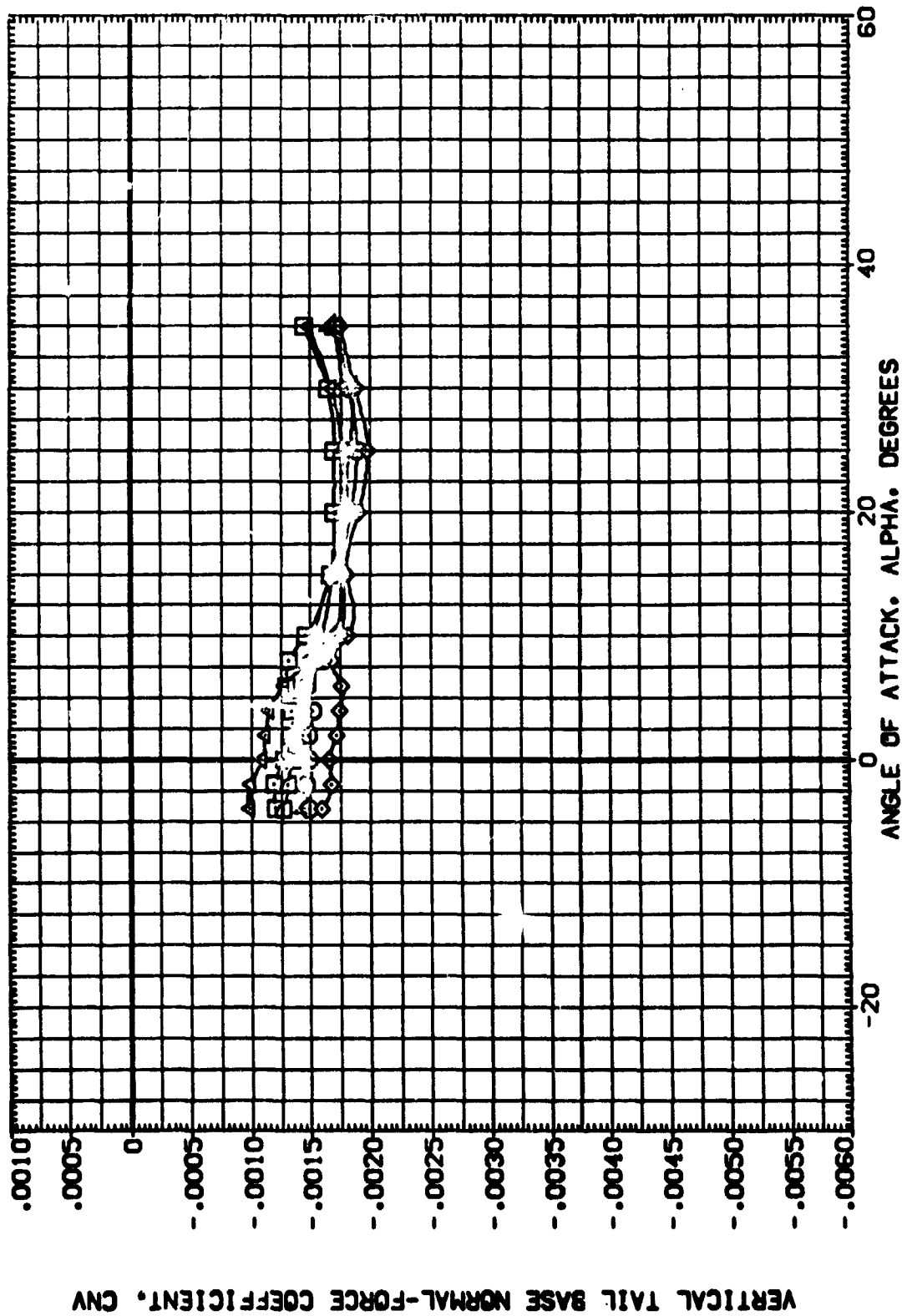


FIG. 6 STING AND NOZZLE TARES

(B)MACH = 3.95

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BOFLAP	SPOBRK	ELEVON	REFERENCE INFORMATION
(F02101)	DA-208 LARC UPVT 1057 140 A/B DBB + DUMMY STING	.000	-11.700	54.920	.000	SREF 2690.0000 SO.FT.
(F02102)	DA-208 LARC UPVT 1057 140 A/B DBB + DUMMY STING	.000	-11.700	54.920	.000	LREF 1290.3000 INCHES
(F02103)	DA-208 LARC UPVT 1057 140 A/B DBB + DUMMY STING	3.000	-11.700	54.920	.000	BREF 936.6900 INCHES
(F02104)	DA-208 LARC UPVT 1057 140 A/B DBB + DUMMY STING	.000	-11.700	54.920	.000	XREF 1076.7000 INCHES
(F02105)	DA-208 LARC UPVT 1057 140 A/B DBB + DUMMY STING	.000	16.300	54.920	.000	YREF 375.0000 INCHES
(F02106)	DA-208 LARC UPVT 1057 140 A/B DBB + DUMMY STING	.000	16.300	54.920	.000	ZREF 375.0000 INCHES
						SCALE .0150

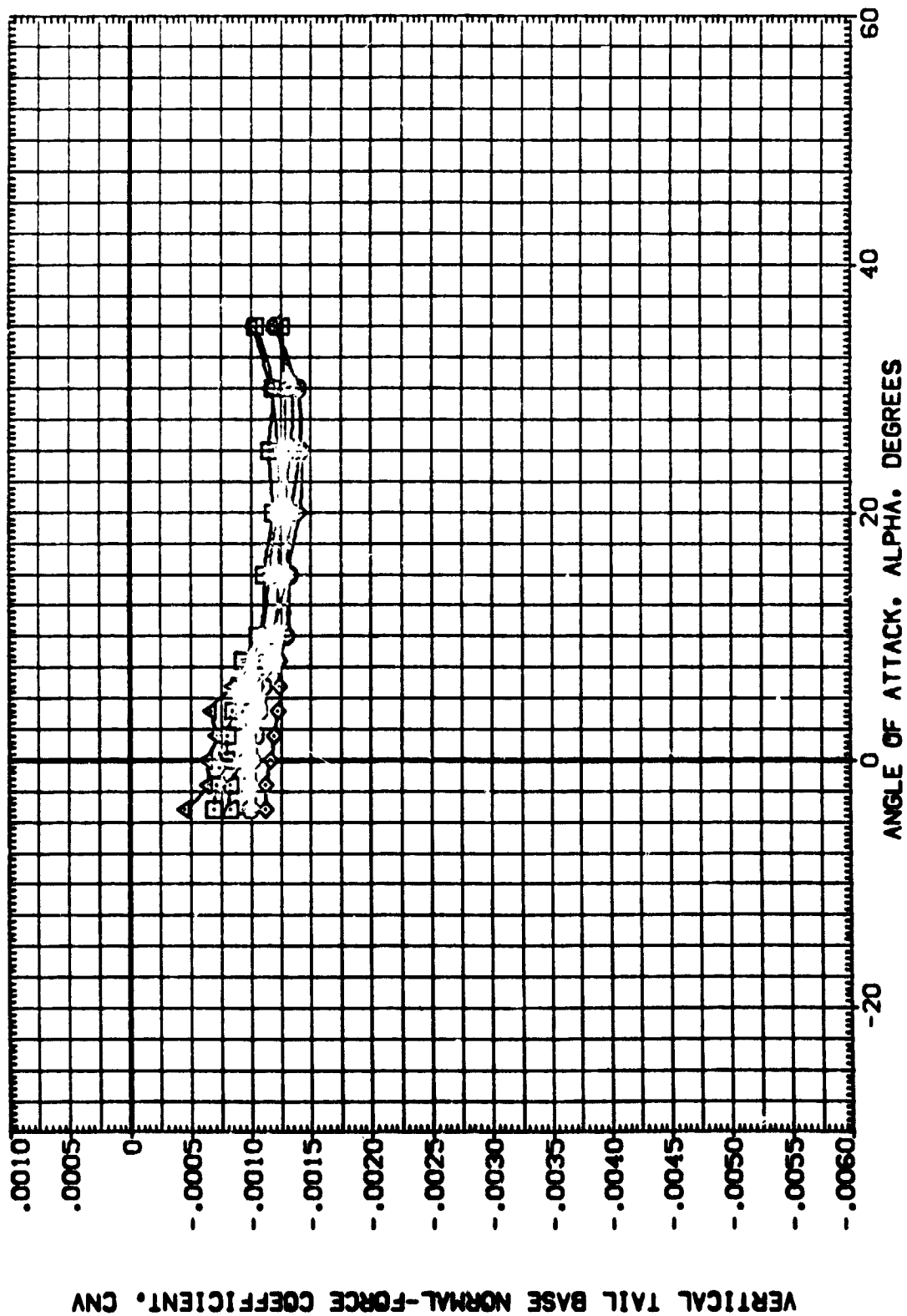


FIG. 6 STING AND NOZZLE TARES

(C)MACH = 4.63

DATA SET SYMBOL	CONF IGURATION DESCRIPTION	BETA	BD FLAP	SPDRK	ELEVON	REFERENCE INFORMATION
(F02101)	BA-208 LARC UPVT 1057 140 A/B 058 +DUMMY STING	.000	-11.700	54.920	.000	SREF 2650.0000 SQ.FT.
(F02102)	BA-208 LARC UPVT 1057 140 A/B 058	.000	-11.700	54.920	.000	LREF 1250.3000 INCHES
(F02103)	BA-208 LARC UPVT 1057 140 A/B 058 + DUMMY STING	3.000	-11.700	54.920	.000	SREF 936.6900 INCHES
(F02104)	BA-208 LARC UPVT 1057 140 A/B 058	3.000	-11.700	54.920	.000	XREF 1076.7000 INCHES
(F02105)	BA-208 LARC UPVT 1057 140 A/B 058 +DUMMY STING	.000	16.300	54.920	.000	YREF .0000 INCHES
(F02106)	BA-208 LARC UPVT 1057 140 A/B 058	.000	16.300	54.920	.000	ZREF 375.0000 INCHES
						SCALE .0150

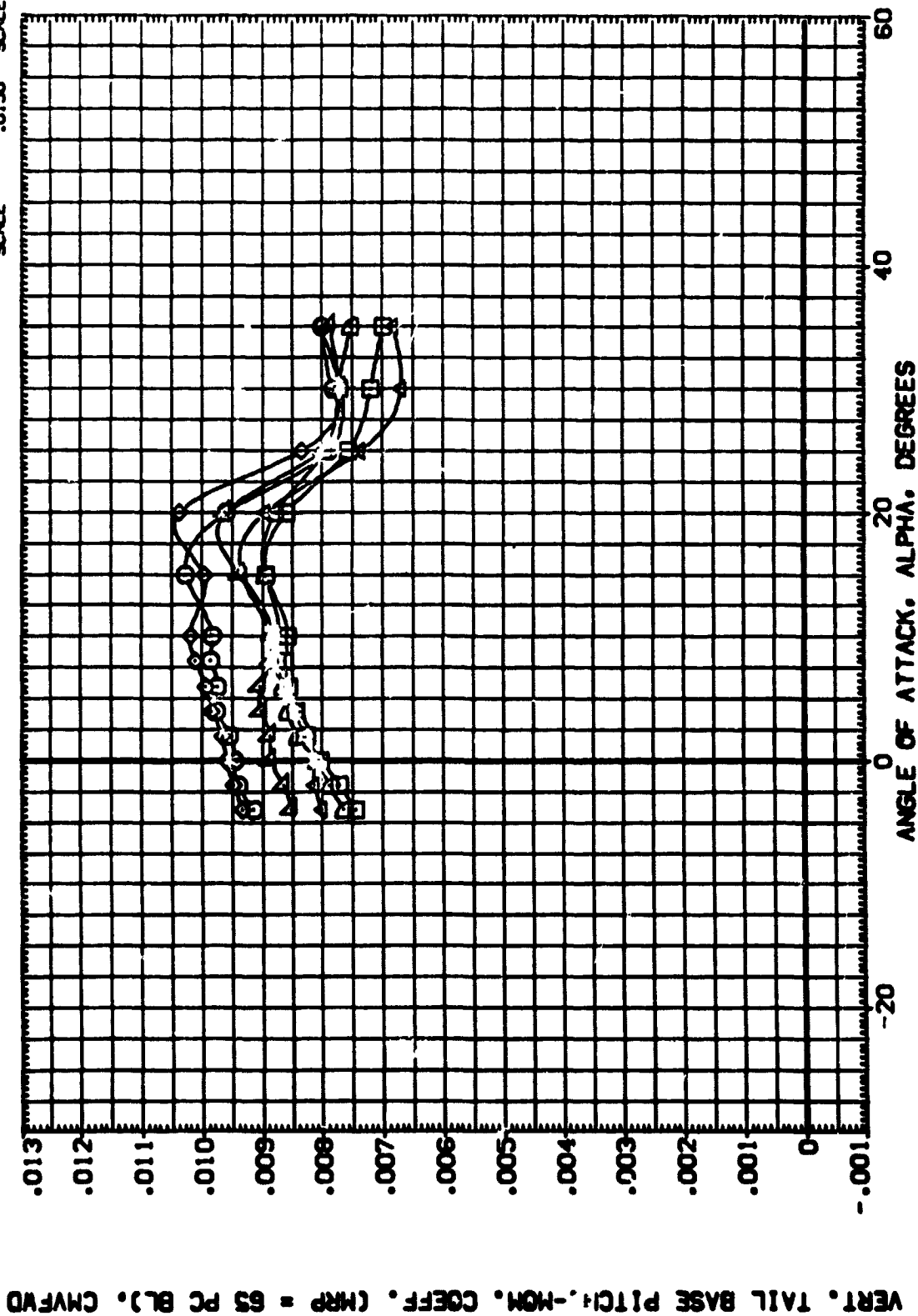


FIG. 6 STING AND NOZZLE TARES

(A)MACH = 2.50

DATA SET	NOZ.	CONF.	DESCRIPTION	BETA	BOFLAP	SPDRK	ELEVON	REFERENCE	CONVERSION
[F02101]	0A-208	LARC	UPVT 1087 140 A/B DBB	.000	-11.700	54.520	.000	SRF	2693.0000 SQ.FT.
[F02102]	0A-208	LARC	UPVT 1087 140 A/B DBB	.000	-11.700	54.520	.000	LRF	1283.3000 INCHES
[F02103]	0A-208	LARC	UPVT 1087 140 A/B DBB	3.000	-11.700	54.520	.000	BRF	936.6000 INCHES
[F02104]	0A-208	LARC	UPVT 1087 140 A/B DBB	3.000	-11.700	54.520	.000	YRFP	1076.7000 INCHES
[F02105]	0A-208	LARC	UPVT 1087 140 A/B DBB	.000	16.300	54.520	.000	YRFP	375.0000 INCHES
[F02106]	0A-208	LARC	UPVT 1087 140 A/B DBB	.000	16.300	54.520	.000	SCALE	.0150 SCALE

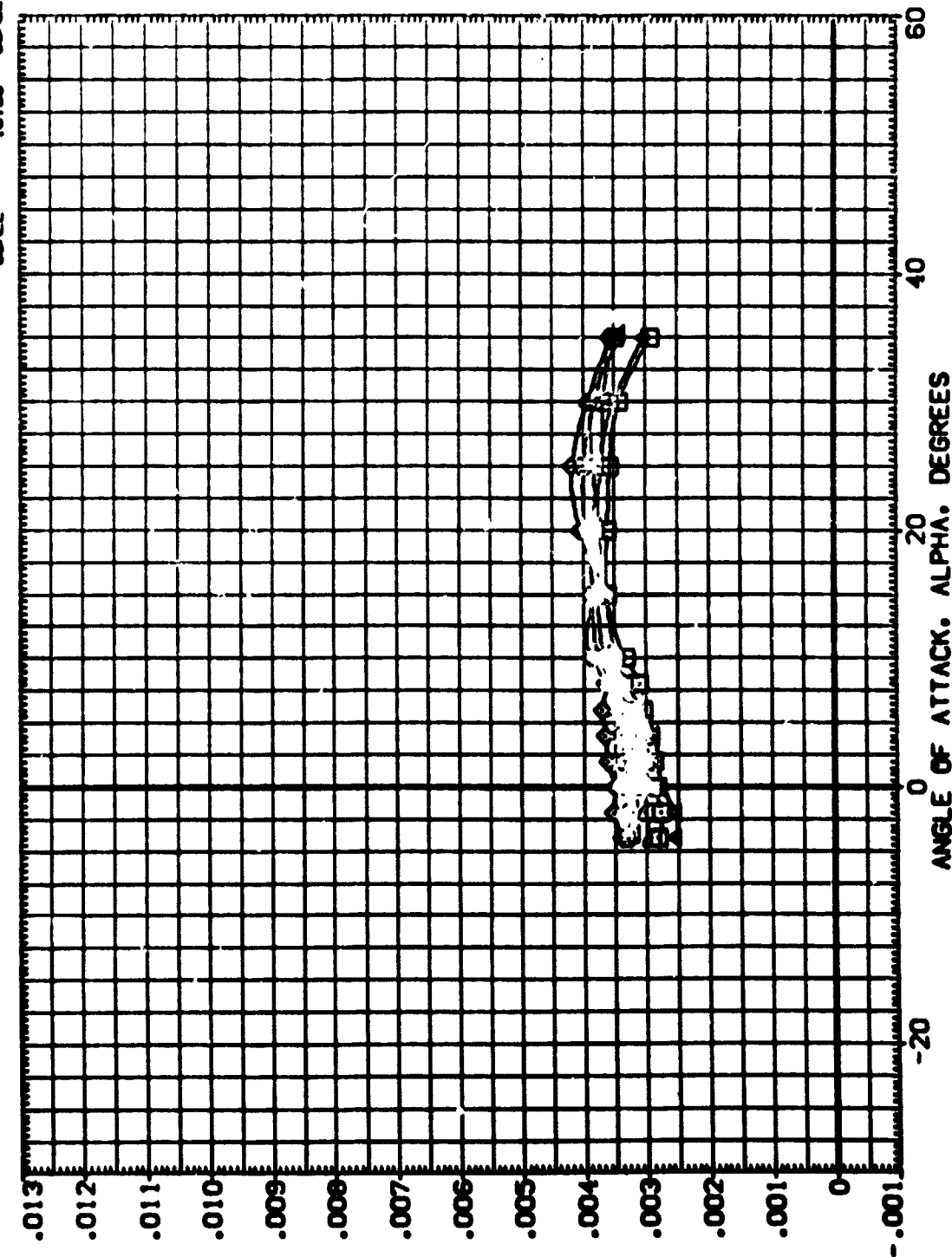


FIG. 6 STING AND NOZZLE TARES

(B)MACH = 3.95





VERT. TAIL BASE PITCH, -MON. COEFF. (MRP = 67.5 PC BL), CHVAFT

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BOFLAP	SPDRBK	ELEVON	REFERENCE INFORMATION
(F02101)	GA-208 LARC UPVT 1097 140 A/B 0/8	.000	-11.700	54.920	.000	SREF 2680.0000 SO.FT.
(F02102)	GA-208 LARC UPVT 1097 140 A/B 0/8	.000	-11.700	54.920	.000	LREF 1290.3000 INCHES
(F02103)	GA-208 LARC UPVT 1097 140 A/B 0/8	.000	-11.700	54.920	.000	BREF 936.8500 INCHES
(F02104)	GA-208 LARC UPVT 1097 140 A/B 0/8	.000	-11.700	54.920	.000	XPRP 1076.7000 INCHES
(F02105)	GA-208 LARC UPVT 1097 140 A/B 0/8	.000	-11.700	54.920	.000	YPRP 375.0000 INCHES
(F02106)	GA-208 LARC UPVT 1097 140 A/B 0/8	.000	-11.700	54.920	.000	ZPRP 375.0000 INCHES
(F02107)	GA-208 LARC UPVT 1097 140 A/B 0/8	.000	-11.700	54.920	.000	SCALE .0150

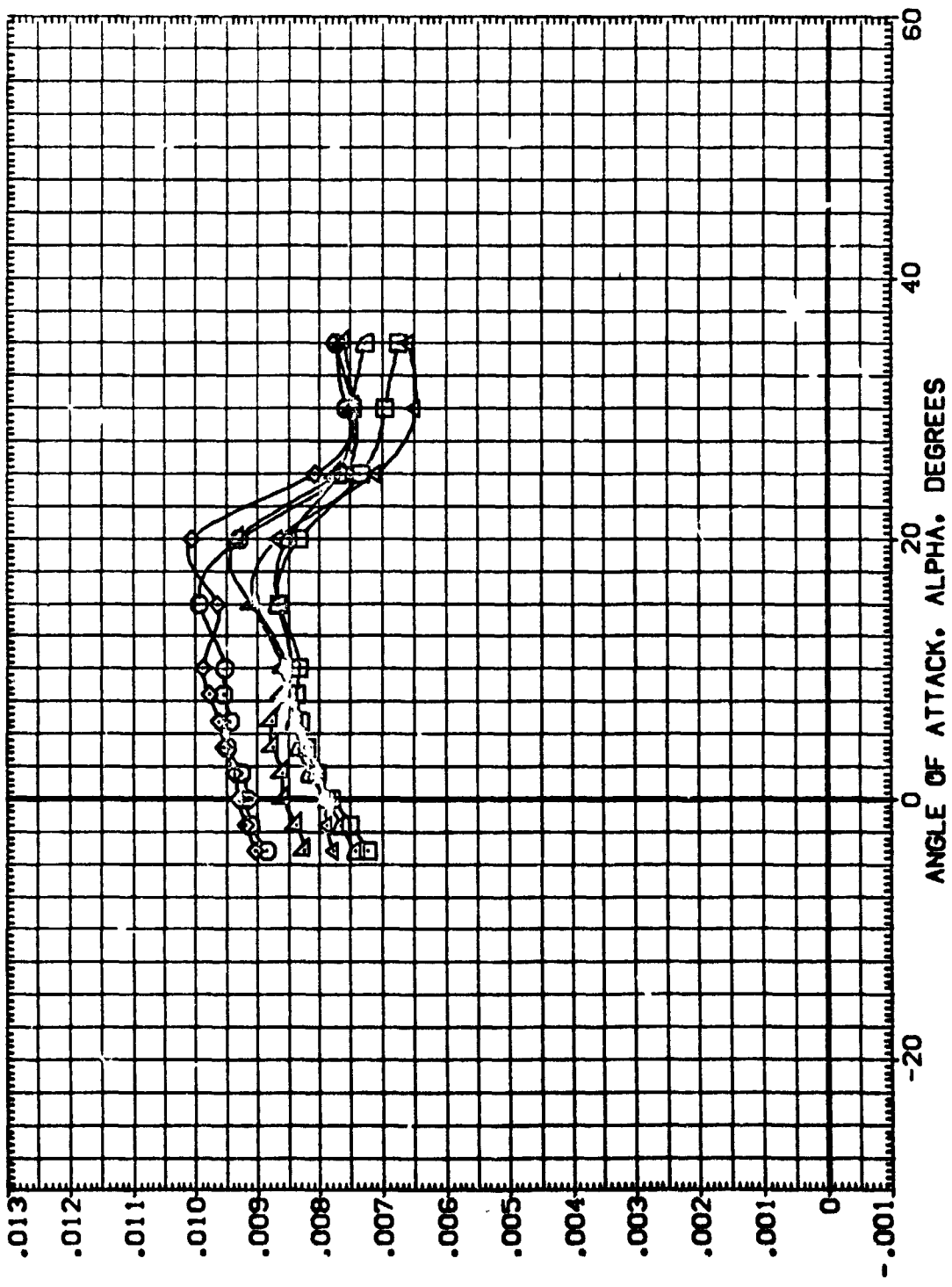


FIG. 6 STING AND NOZZLE TARES

(A)MACH = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	OVERLAP	SPURK	ELEVON	REFERENCE INFORMATION
(F02101)	GA-208 LARC UPAT 1057 140 A/B 058	.000	-11.700	54.920	.000	SREF 2690.0000 50.FT.
(F02102)	GA-208 LARC UPAT 1057 140 A/B 058	.000	-11.700	54.920	.000	LREF 1250.3000 INCHES
(F02103)	GA-208 LARC UPAT 1057 140 A/B 058	3.000	-11.700	54.920	.000	BREF 925.6000 INCHES
(F02104)	GA-208 LARC UPAT 1057 140 A/B 058	.000	-11.700	54.920	.000	XMRP 1076.7000 INCHES
(F02105)	GA-208 LARC UPAT 1057 140 A/B 058	.000	16.300	54.920	.000	YMRP 375.0000 INCHES
						ZMRP SCALE .0150

VERT. TAIL BASE PITCH, -MGM. COEFF. (MRP = 67.5 PC BL.), CHVAFT

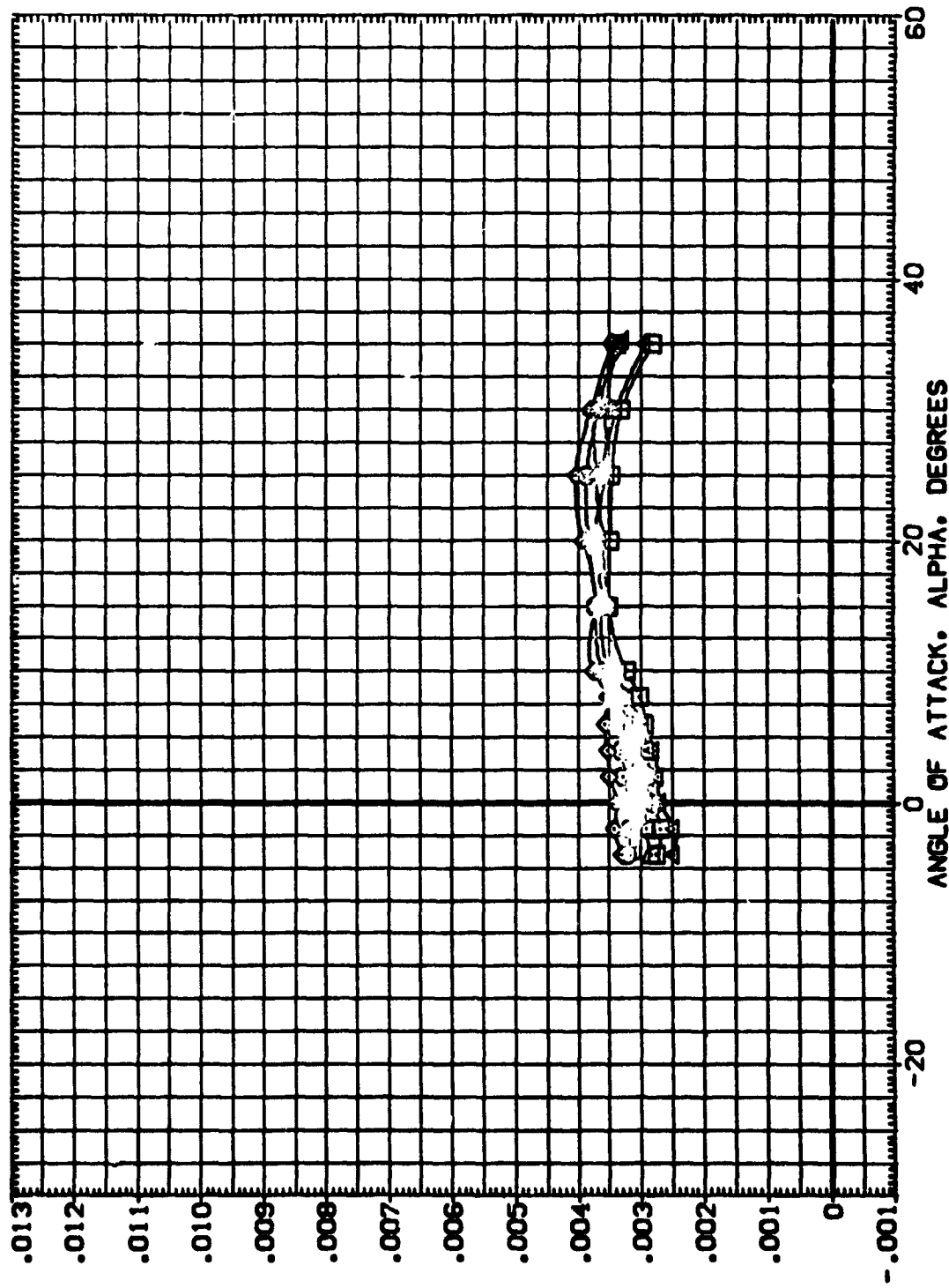


FIG. 6 STING AND NOZZLE TARES

(B)MACH = 3.95

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BD FLAP	SPOBRK	ELEVON	REFERENCE INFORMATION
(F02101)	GA-208 LARC UPVT 1057 140 A/B 058 +DUMMY STING	.000	-11.700	54.920	.000	SREF 2690.0000 SQ.FT.
(F02102)	GA-208 LARC UPVT 1057 140 A/B 058 +DUMMY STING	.000	-11.700	54.920	.000	LREF 1290.3000 INCHES
(F02103)	GA-208 LARC UPVT 1057 140 A/B 058 +DUMMY STING	3.000	-11.700	54.920	.000	BREF 936.6200 INCHES
(F02104)	GA-208 LARC UPVT 1057 140 A/B 058 +DUMMY STING	3.000	-11.700	54.920	.000	XMRP 1076.7000 INCHES
(F02105)	GA-208 LARC UPVT 1057 140 A/B 058 +DUMMY STING	.000	16.300	54.920	.000	ZMRP 375.0000 INCHES
		.000	16.300	54.920	.000	SCALE .0150

VERT. TAIL BASE PITCH.-MOM. COEFF. (MRP = 67.5 PC BL.). CMVAFT

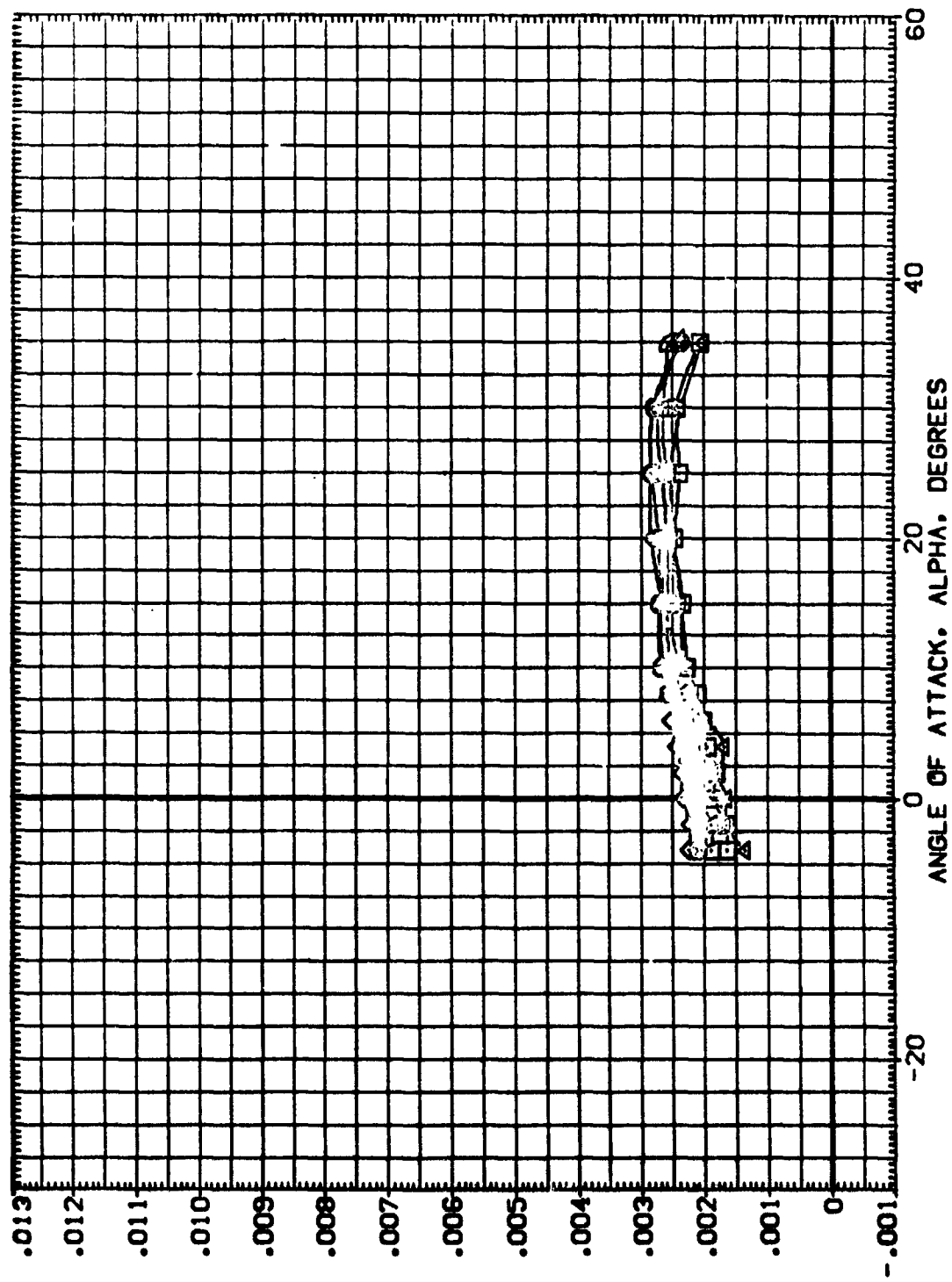


FIG. 6 STING AND NOZZLE TARES

(CMACH = 4.63)



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BD FLAP	SPD BRK	ELEVON	REFERENCE INFORMATION
(F02101)	BA-208 LARC UPVT 1097 140 A/B DBB +DUMMY STING	.000	-11.700	54.920	.000	SREF 2690.0000 SQ.FT.
(F02102)	BA-208 LARC UPVT 1097 140 A/B DBB +DUMMY STING	.000	-11.700	54.920	.000	LREF 1290.3000 INCHES
(F02103)	BA-208 LARC UPVT 1097 140 A/B DBB +DUMMY STING	.000	-11.700	54.920	.000	BREF 936.6000 INCHES
(F02104)	BA-208 LARC UPVT 1097 140 A/B DBB +DUMMY STING	.000	-11.700	54.920	.000	XREF 1076.7000 INCHES
(F02105)	BA-208 LARC UPVT 1097 140 A/B DBB +DUMMY STING	.000	16.300	54.920	.000	YREF 375.0000 INCHES
						ZREF 375.0000 INCHES
						SCALE .0150

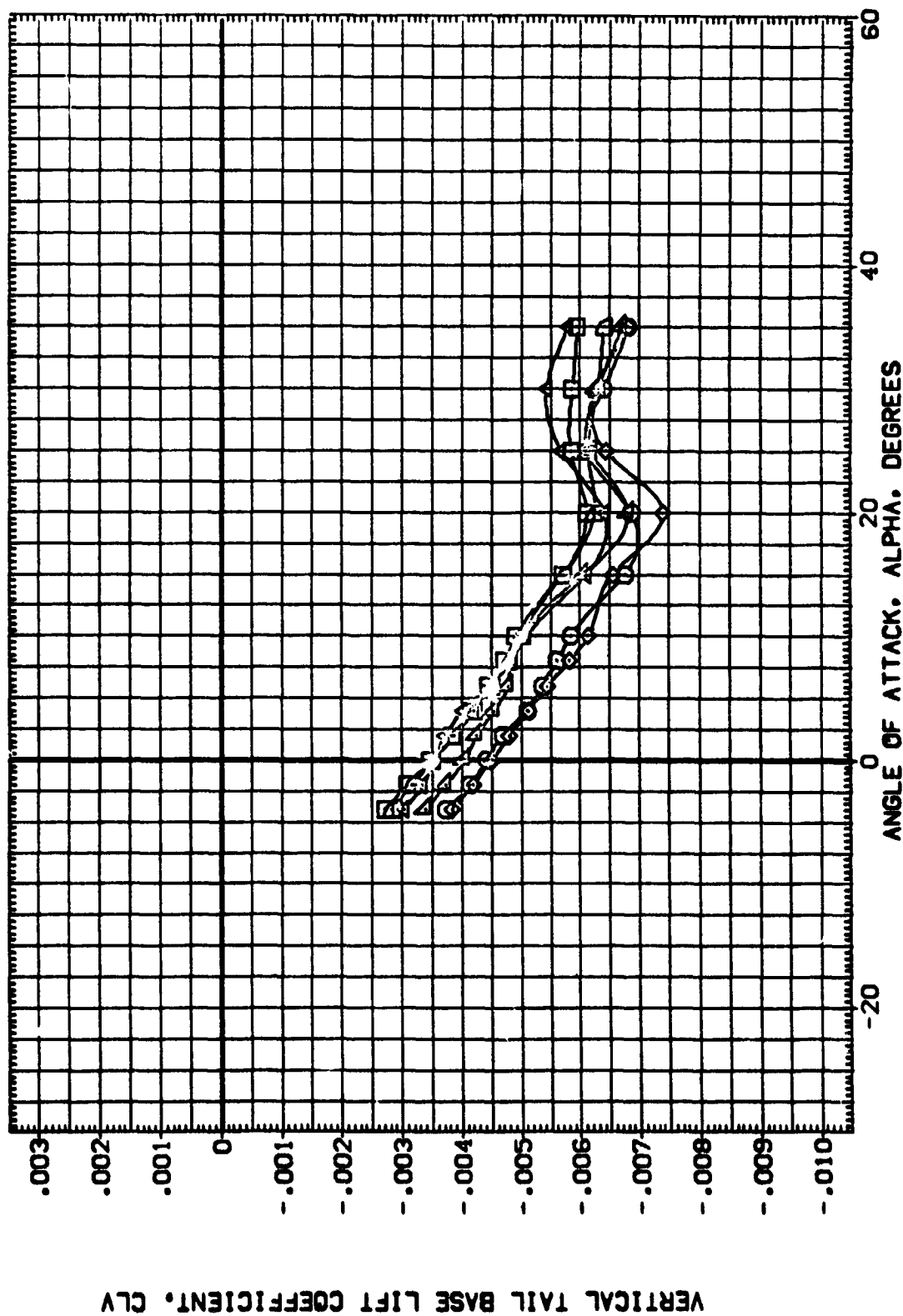


FIG. 6 STING AND NOZZLE TARES

(A)MACH = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BOFLAP	SP05BK	ELEVON	REFERENCE INFORMATION
(F02101)	GA-208 LARC UPVT 1057 140 A/B 058	.000	-11.700	54.920	.000	SREF 2690.0000 SQ.FT.
(F02102)	GA-208 LARC UPVT 1057 140 A/B 058	.000	-11.700	54.920	.000	LREF 1290.3000 INCHES
(F02103)	GA-208 LARC UPVT 1057 140 A/B 058	3.000	-11.700	54.920	.000	BREF 936.6900 INCHES
(F02104)	GA-208 LARC UPVT 1057 140 A/B 058	.000	16.300	54.920	.000	XMPP 1076.7000 INCHES
(F02105)	GA-208 LARC UPVT 1057 140 A/B 058	.000	16.300	54.920	.000	YMPP .0000 INCHES
(F02106)	GA-208 LARC UPVT 1057 140 A/B 058	.000	16.300	54.920	.000	ZMPP .0150 SCALE

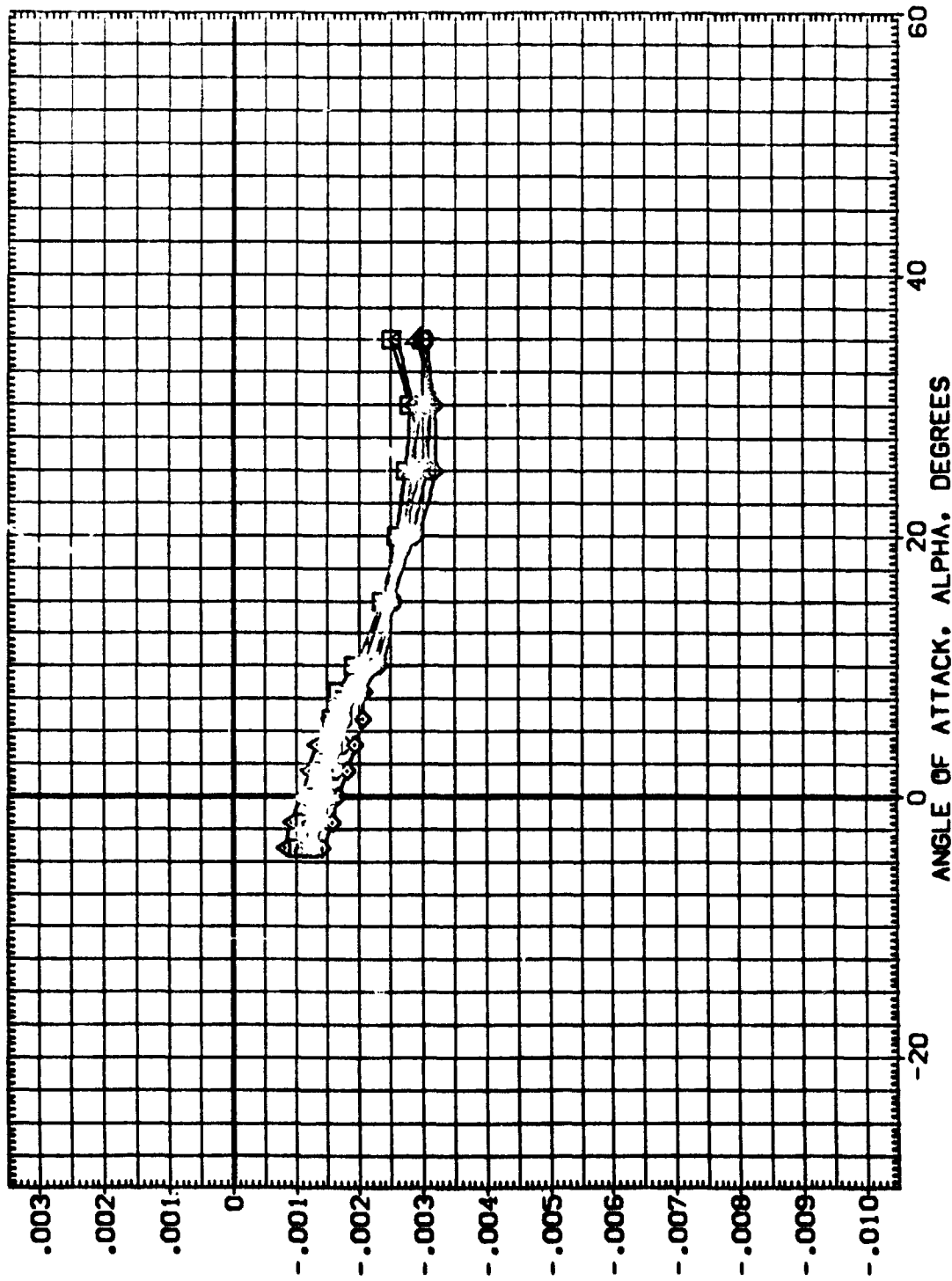


FIG. 6 STING AND NOZZLE TARES

(B)MACH = 3.95



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BDFLAP	SPOBRK	ELEVON	REFERENCE INFORMATION
(F02101)	DA-208 LARC UPVT 1087 140 A/B 088 +DUPPY STING	.000	-11.700	54.920	.000	SREF 2680.0000 SQ.FT.
(F02107)	DA-208 LARC UPVT 1087 140 A/B 088 +DUPPY STING	.000	-11.700	54.920	.000	LREF 1250.3000 INCHES
(F02102)	DA-208 LARC UPVT 1087 140 A/B 088 +DUPPY STING	3.000	-11.700	54.920	.000	BREF 936.6000 INCHES
(F02103)	DA-208 LARC UPVT 1087 140 A/B 088 +DUPPY STING	3.000	-11.700	54.920	.000	XREF 1076.7000 INCHES
(F02108)	DA-208 LARC UPVT 1087 140 A/B 088 +DUPPY STING	.000	16.300	54.920	.000	YREF 375.0000 INCHES
						ZREF .0150 SCALE

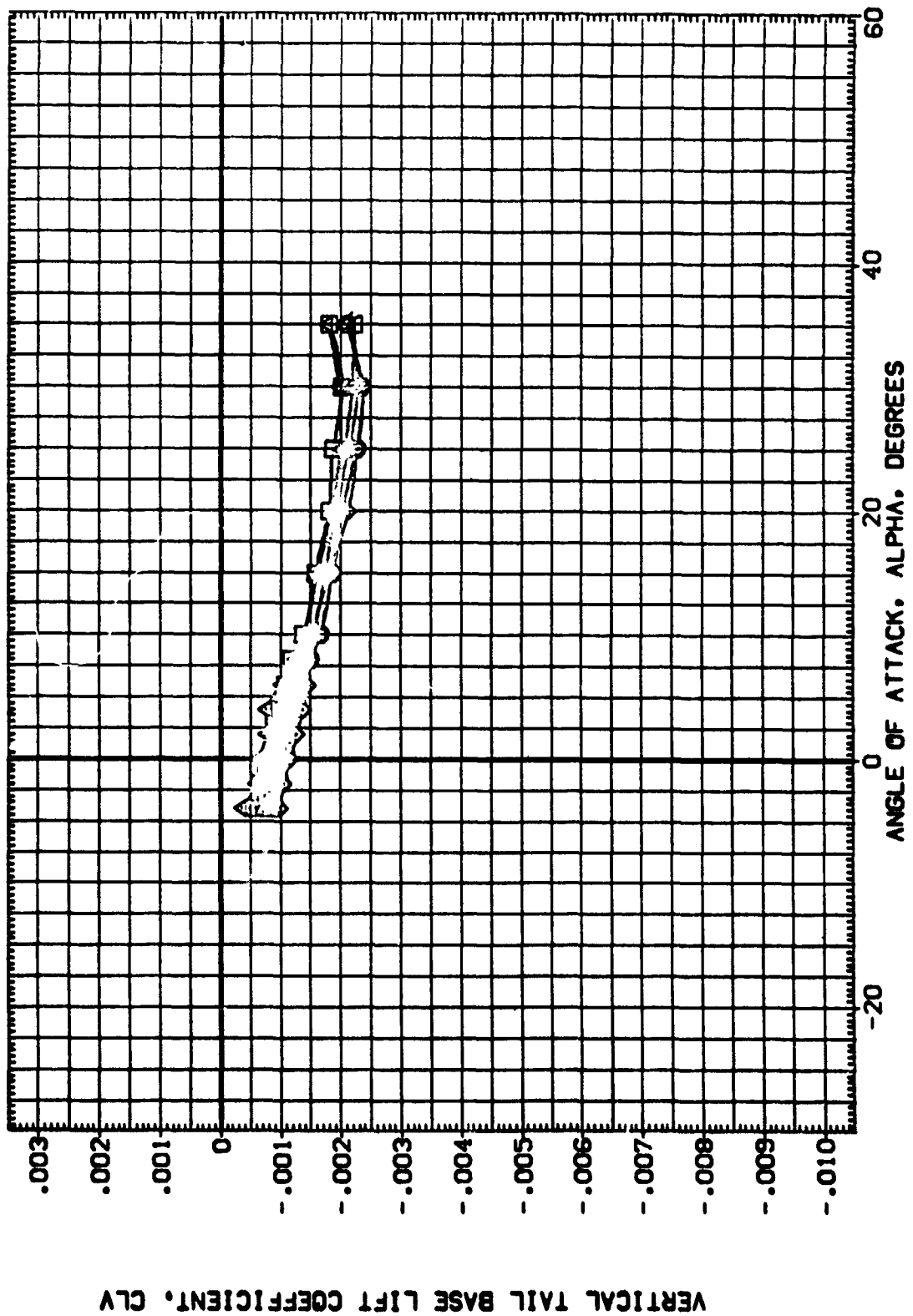


FIG. 6 STING AND NOZZLE TARES

(C)MACH = 4.63

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BDF LAP	SPOBRK	ELEVON	REFERENCE INFORMATION
(602101)	DA-208 LARC UPVT 1057 140 A/B 058 +DUMMY STING	.000	-11.700	54.920	.000	SREF 2690.0000 SO.FT.
(602102)	DA-208 LARC UPVT 1057 140 A/B 058 +DUMMY STING	.000	-11.700	54.920	.000	LREF 1290.3000 INCHES
(602103)	DA-208 LARC UPVT 1057 140 A/B 058 +DUMMY STING	.000	-11.700	54.920	.000	BREF 936.6000 INCHES
(602104)	DA-208 LARC UPVT 1057 140 A/B 058 +DUMMY STING	.000	-11.700	54.920	.000	YPRP 1076.7000 INCHES
(602105)	DA-208 LARC UPVT 1057 140 A/B 058 +DUMMY STING	.000	-11.700	54.920	.000	ZPRP 375.0000 INCHES
						SCALE .0150

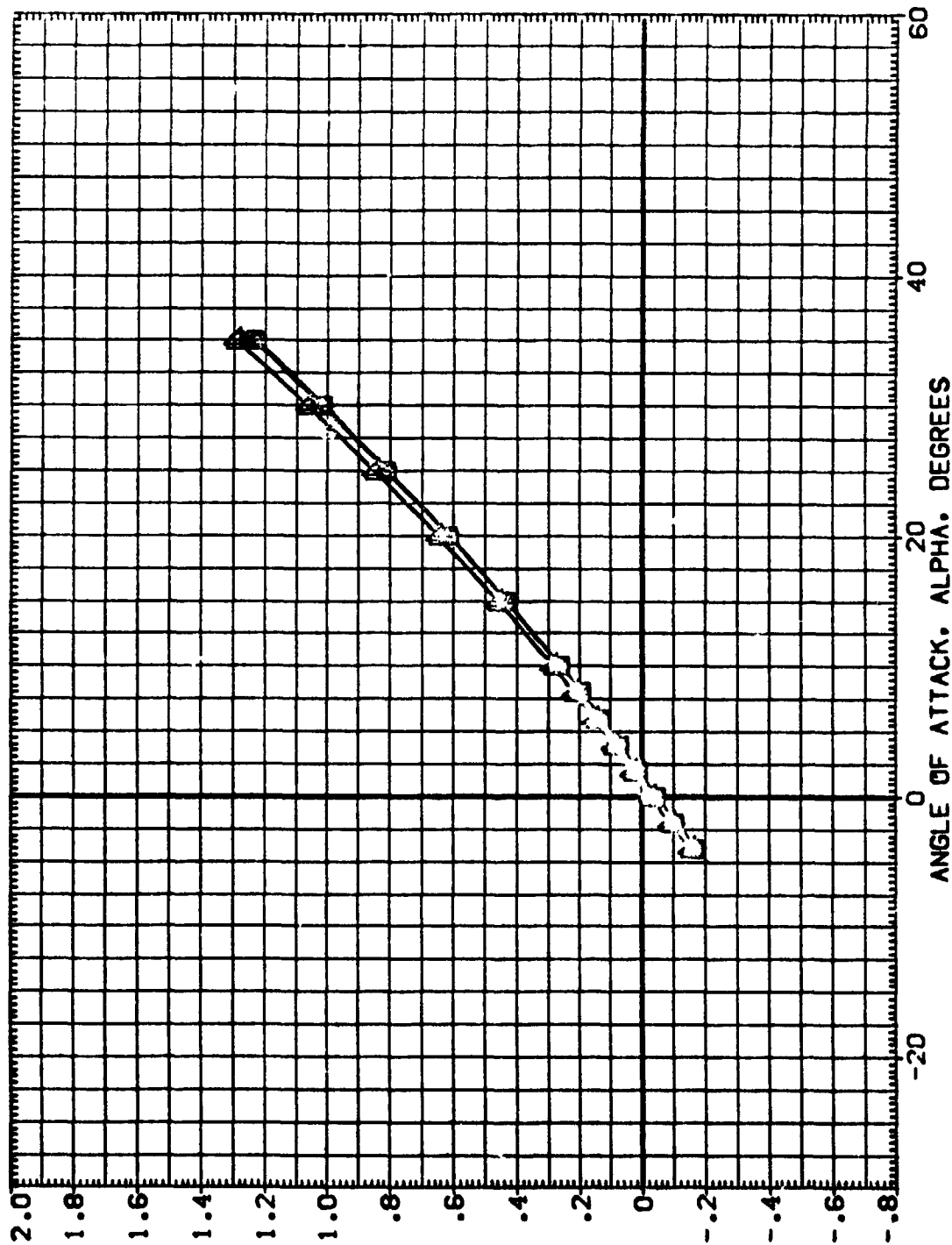


FIG. 6 STING AND NOZZLE TARES

(A)MACH = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BOFLAP	SPOBRK	ELEVON	REFERENCE INFORMATION
{002101}	0A-208 LARC UPVT 1057 140 A/B DBB +DUMMY STING	.000	-11.700	54.920	.000	SREF 2690.0000 SQ.FT.
{002102}	0A-208 LARC UPVT 1057 140 A/B DBB +DUMMY STING	.000	-11.700	54.920	.000	LREF 1290.3000 INCHES
{002103}	0A-208 LARC UPVT 1057 140 A/B DBB +DUMMY STING	3.000	-11.700	54.920	.000	BREF 936.6900 INCHES
{002104}	0A-208 LARC UPVT 1057 140 A/B DBB +DUMMY STING	3.000	-11.700	54.920	.000	XREF 1076.7000 INCHES
{002105}	0A-208 LARC UPVT 1057 140 A/B DBB +DUMMY STING	.000	16.300	54.920	.000	YREF 375.0000 INCHES
{002106}	0A-208 LARC UPVT 1057 140 A/B DBB +DUMMY STING	.000	16.300	54.920	.000	ZREF 375.0000 INCHES
						SCALE .0150

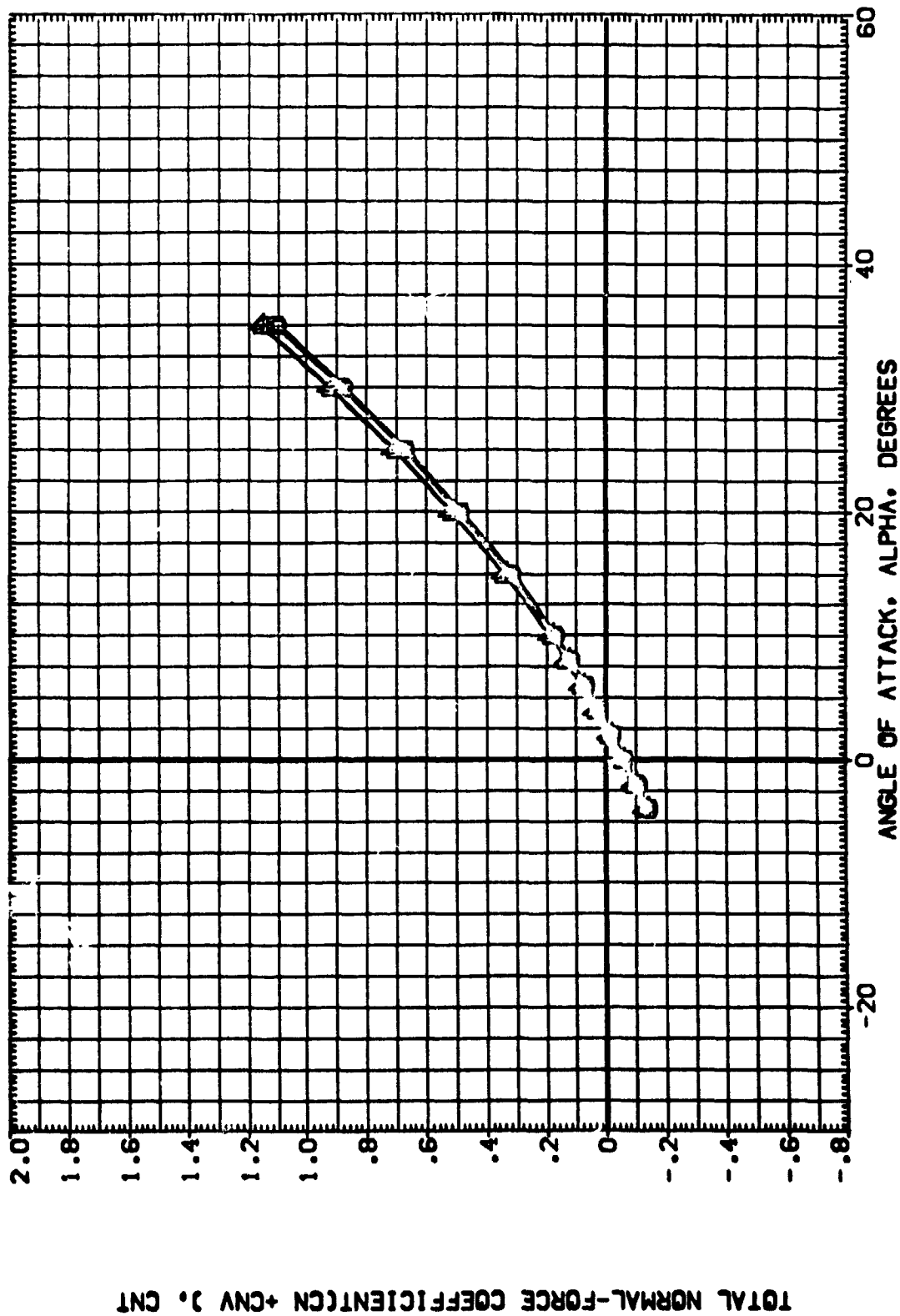
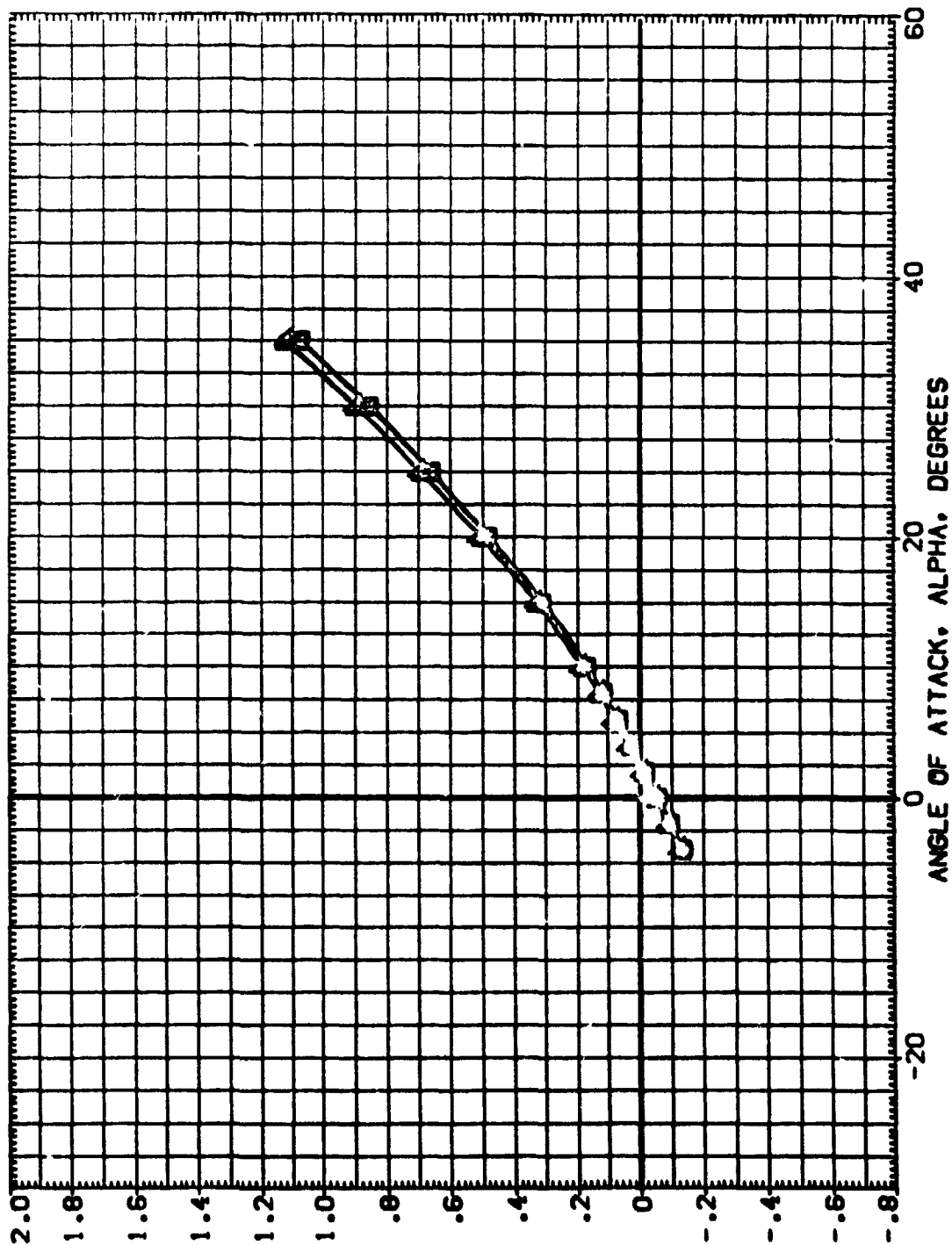


FIG. 6 STING AND NOZZLE TARES

(B)MACH = 3.95

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BD/LAP	SPOBRK	ELEVON	REFERENCE INFORMATION
{002101}	DA-208 LARC UPVT 1097 140 A/B DBB	.000	-11.700	54.920	.000	SREF 2690.0000 SQ.FT.
{002102}	DA-208 LARC UPVT 1097 140 A/B DBB	.000	-11.700	54.920	.000	LREF 1290.3000 INCHES
{002103}	DA-208 LARC UPVT 1097 140 A/B DBB	3.000	-11.700	54.920	.000	BREF 935.6300 INCHES
{002104}	DA-208 LARC UPVT 1097 140 A/B DBB	3.000	-11.700	54.920	.000	XPRP 1076.7000 INCHES
{002105}	DA-208 LARC UPVT 1097 140 A/B DBB	.000	16.300	54.920	.000	YPRP .0000 INCHES
{002106}	DA-208 LARC UPVT 1097 140 A/B DBB	.000	16.300	54.920	.000	ZPRP 375.0000 INCHES
						SCALE .0150



TOTAL NORMAL-FORCE COEFFICIENT(CN + CNV), CNT

FIG. 6 STING AND NOZZLE TARES

(C)MACH = 4.63



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BD FLAP	SPD BRK	ELEVON	REFERENCE INFORMATION
(002101)	0A-208 LARC UPVT 1087 140 A/B 008 +DUPPY STING	.000	-11.700	54.520	.000	SREF 2690.0000 SO.FT.
(002102)	0A-208 LARC UPVT 1087 140 A/B 008 +DUPPY STING	.000	-11.700	54.520	.000	LREF 1290.3000 INCHES
(002103)	0A-208 LARC UPVT 1087 140 A/B 008 +DUPPY STING	3.000	-11.700	54.520	.000	BREF 936.6300 INCHES
(002104)	0A-208 LARC UPVT 1087 140 A/B 008 +DUPPY STING	3.000	-11.700	54.520	.000	XREF 1076.7000 INCHES
(002105)	0A-208 LARC UPVT 1087 140 A/B 008 +DUPPY STING	.000	16.300	54.520	.000	YREF .0000 INCHES
(002106)	0A-208 LARC UPVT 1087 140 A/B 008 +DUPPY STING	.000	16.300	54.520	.000	ZREF .0150 SCALE

TOTAL PITCH.-MOM. COEFF.(MRP = 63.0 PC BL) CLM +CMVFD + CMTFVD

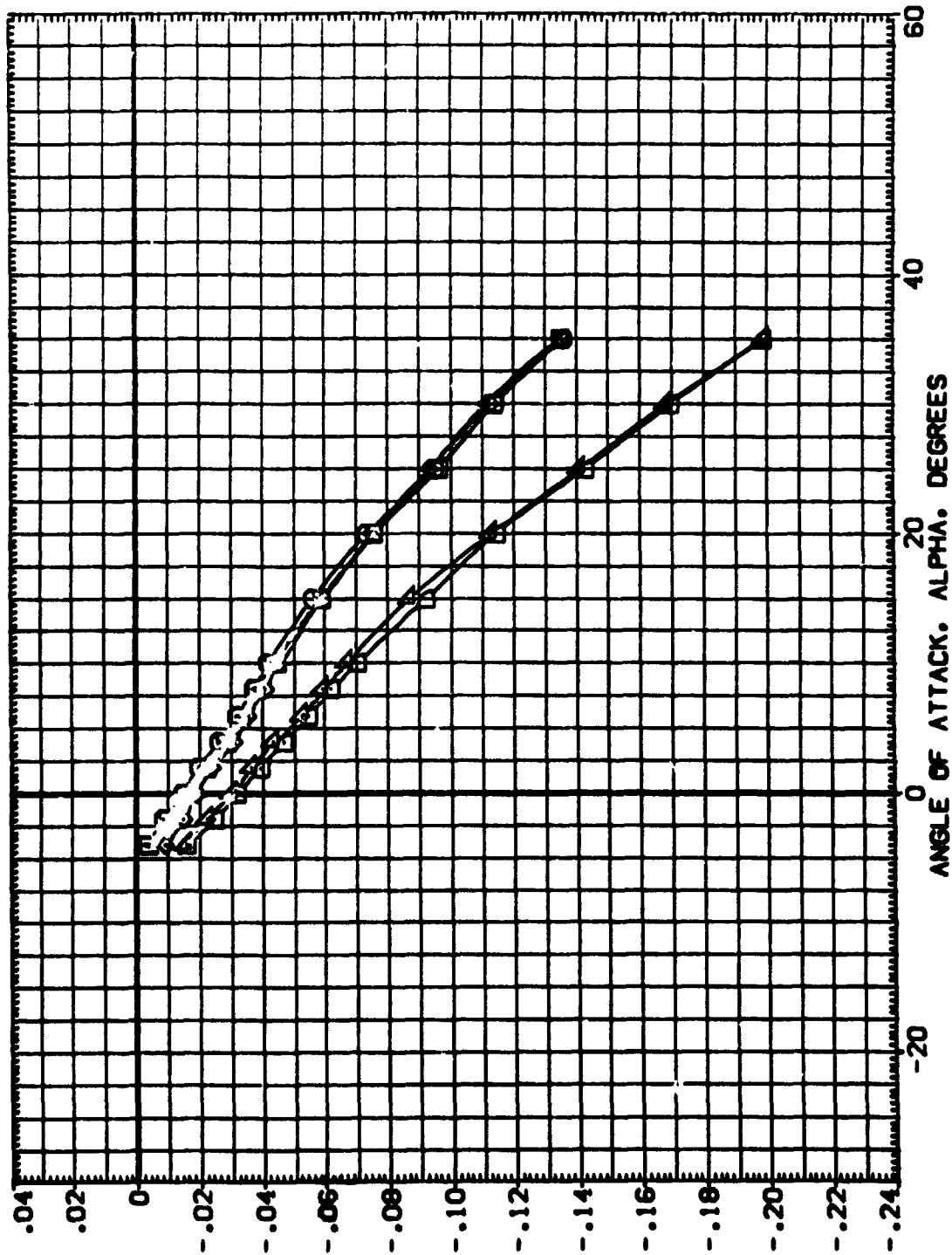


FIG. 6 STING AND NOZZLE TARES

(A)MACH = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BOFLAP	SPOBRK	ELEVON	REFERENCE INFORMATION
(002101)	0A-208 LARC UPVT 1087 140 A/B 098 +DUMMY STING	.000	-11.700	54.520	.000	SREF 2690.0000 SQ.FT.
(002102)	0A-208 LARC UPVT 1087 140 A/B 098 +DUMMY STING	.000	-11.700	54.520	.000	LREF 1290.3000 INCHES
(002103)	0A-208 LARC UPVT 1087 140 A/B 098 +DUMMY STING	3.000	-11.700	54.520	.000	BREF 936.6900 INCHES
(002104)	0A-208 LARC UPVT 1087 140 A/B 098 +DUMMY STING	.000	-11.700	54.520	.000	XMRP 1076.7000 INCHES
(002105)	0A-208 LARC UPVT 1087 140 A/B 098 +DUMMY STING	.000	16.300	54.520	.000	YMRP .0000 INCHES
(002106)	0A-208 LARC UPVT 1087 140 A/B 098 +DUMMY STING	.000	16.300	54.520	.000	ZMRP 375.0000 INCHES
						SCALE .0150

TOTAL PITCH.-MON. COEFF.(MRP = 65.0 PC BL) CLM +CMVFD + CMTFD

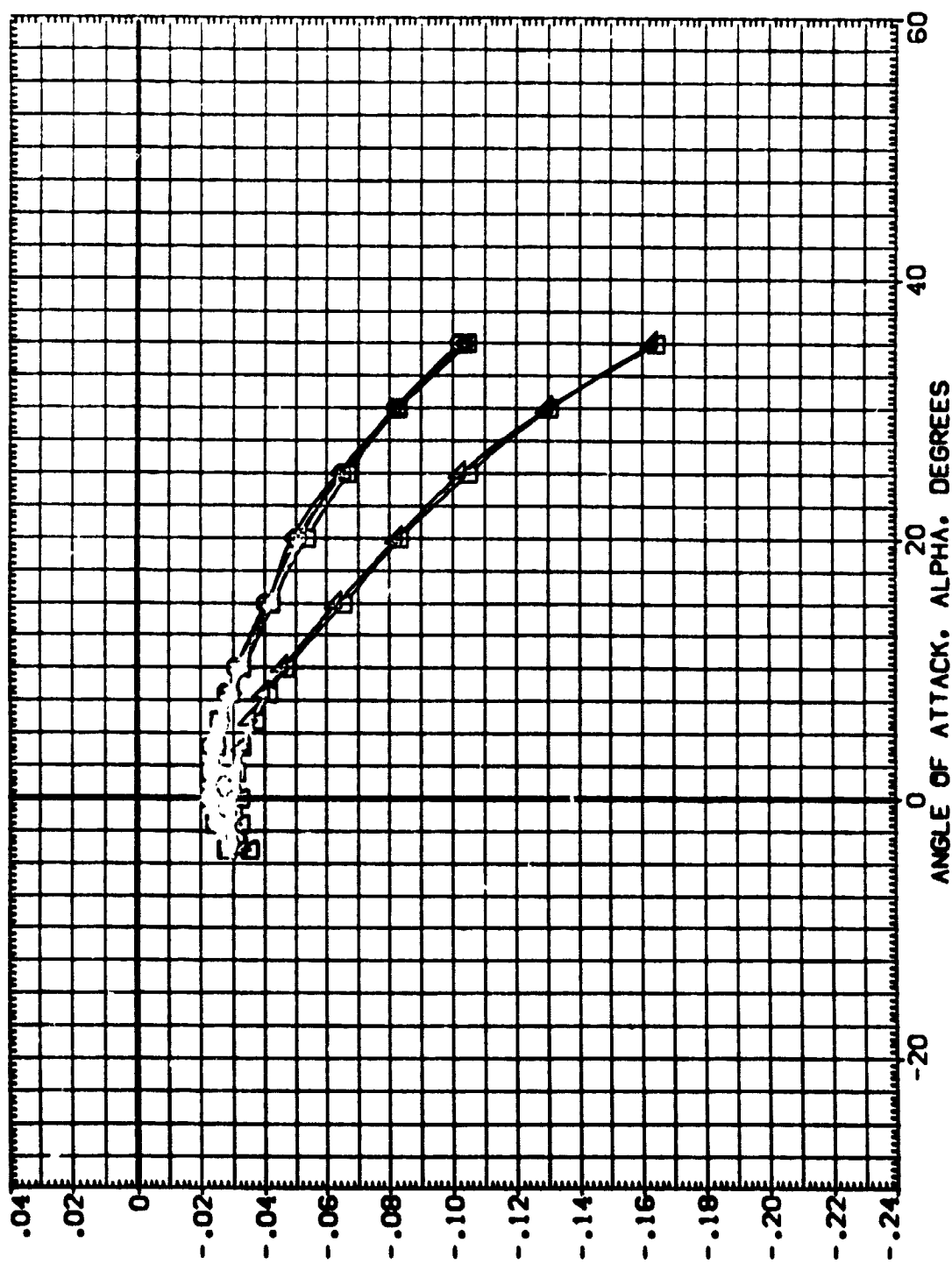


FIG. 6 STING AND NOZZLE TARES

(B)MACH = 3.95

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BD FLAP	SPORK	ELEVON	REFERENCE INFORMATION
(002101)	BA-208 LARC UPVT 1087 140 A/B 098 +DUMMY STING	.000	-11.700	54.520	.000	SREF 2650.0000 SQ.FT.
(002107)	BA-208 LARC UPVT 1087 140 A/B 098 +DUMMY STING	.000	-11.700	54.520	.000	LREF 1280.3000 INCHES
(002108)	BA-208 LARC UPVT 1087 140 A/B 098 +DUMMY STING	3.000	-11.700	54.520	.000	BREF 955.6000 INCHES
(002109)	BA-208 LARC UPVT 1087 140 A/B 098 +DUMMY STING	.000	-11.700	54.520	.000	XREF 1076.7000 INCHES
(002110)	BA-208 LARC UPVT 1087 140 A/B 098 +DUMMY STING	.000	16.300	54.520	.000	YREF .0000 INCHES
(002111)	BA-208 LARC UPVT 1087 140 A/B 098 +DUMMY STING	.000	16.300	54.520	.000	ZREF 375.0000 INCHES
						SCALE .0150

TOTAL PITCH.-HOM. COEFF.(MRP = 65.0 PC BL) CLM +CHVFD + CMTFVD

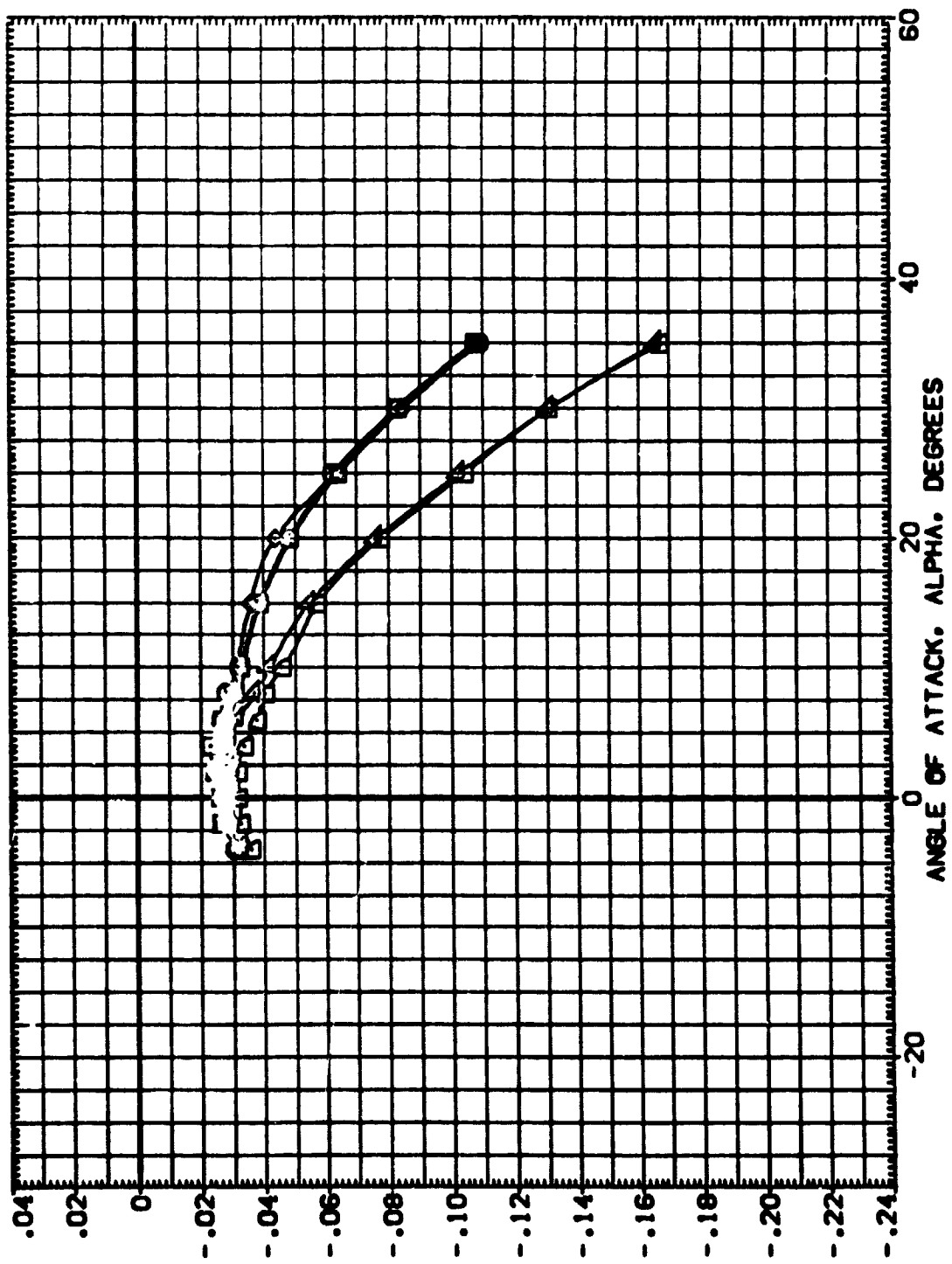


FIG. 6 STING AND NOZZLE TARES

(C)MACH = 4.63

DATA SET SYMBOL CONFIGURATION DESCRIPTION

DATA SET SYMBOL	CONFIGURATION	DESCRIPTION	BETA	BOFLAP	SPDWRK	ELEVON	REFERENCE INFORMATION
002101	0A-208	LARC UPVT 1087 140 A/B 098	.000	-11.700	54.520	.000	SREF 2680.0000 SQ.FT.
002102	0A-208	LARC UPVT 1087 140 A/B 098	.000	-11.700	54.520	.000	LREF 1290.3000 INCHES
002103	0A-208	LARC UPVT 1087 140 A/B 098	3.000	-11.700	54.520	.000	BREF 936.6000 INCHES
002104	0A-208	LARC UPVT 1087 140 A/B 098	3.000	-11.700	54.520	.000	TRFP 1076.7000 INCHES
002105	0A-208	LARC UPVT 1087 140 A/B 098	.000	16.300	54.520	.000	TRFP 375.0000 INCHES
002106	0A-208	LARC UPVT 1087 140 A/B 098	.000	16.300	54.520	.000	SCALE .0150

TOTAL PITCH.-NON. COEFF.(MRP = 67.5 PC BL) CLMAFT + CMVAFT + CHTAFT

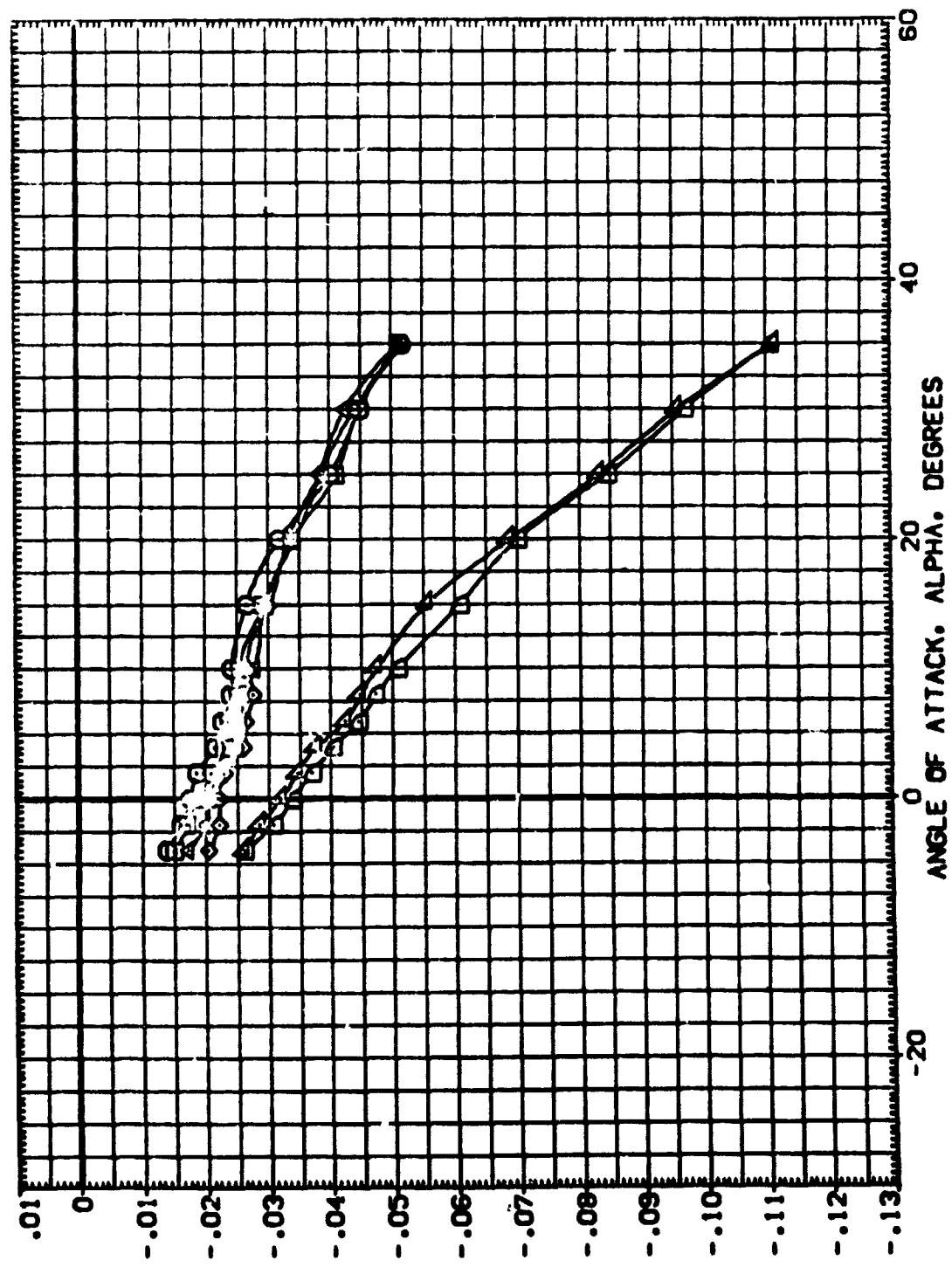


FIG. 6 STING AND NOZZLE TARES
(A)MAC.1 = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	EDLAP	SPURK	ELEVON	REFERENCE INFORMATION
000101	0A-208 LANE UPVT 1087 140 A/B	.000	-11.700	54.920	.000	REF 1000.0000 50-FT
000102	0A-208 LANE UPVT 1087 140 A/B	.000	-11.700	54.920	.000	REF 1790.3000 IN-OES
000103	0A-208 LANE UPVT 1087 140 A/B	.000	-11.700	54.920	.000	REF 1336.6800 IN-OES
000104	0A-208 LANE UPVT 1087 140 A/B	.000	-11.700	54.920	.000	REF 1376.7000 IN-OES
000105	0A-208 LANE UPVT 1087 140 A/B	.000	-11.700	54.920	.000	REF 375.0000 IN-OES
000106	0A-208 LANE UPVT 1087 140 A/B	.000	-11.700	54.920	.000	REF 375.0150 SCALE

TOTAL PITCH.-MON. COEFF.(MRP = 67.5 PC BL) CLMAFI + CMVAFT + CMIAFT

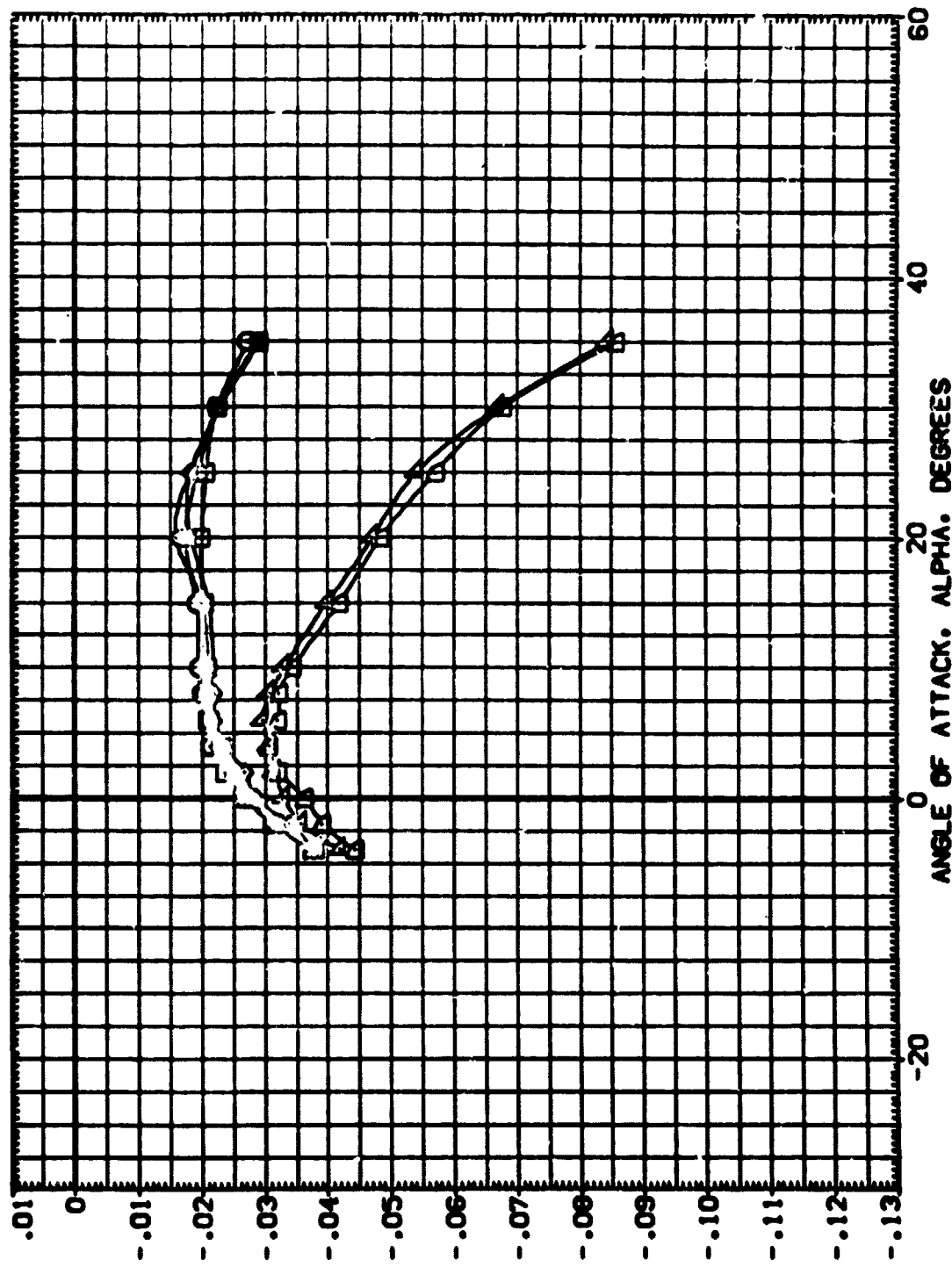


FIG. 6 STING AND NOZZLE TARES

(B)MACH = 3.95

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BD FLAP	SPDBRK	ELEVON	REFERENCE INFORMATION
(002101)	0A-208 LARE UPVT 1087 140 A/B 088	.000	-11.700	54.920	.000	SREF 2690.0000 SQ.FT.
(002102)	0A-208 LARE UPVT 1087 140 A/B 088	.000	-11.700	54.920	.000	LREF 1290.3000 INCHES
(002103)	0A-208 LARE UPVT 1087 140 A/B 088	.000	-11.700	54.920	.000	BREF 936.6000 INCHES
(002104)	0A-208 LARE UPVT 1087 140 A/B 088	.000	-11.700	54.920	.000	YMRP 1076.7000 INCHES
(002105)	0A-208 LARE UPVT 1087 140 A/B 088	.000	-16.300	54.920	.000	ZMRP 375.0000 INCHES
						SCALE .0150

TOTAL PITCH.-MOM. COEFF.(MRP = 87.5 PC BL) CLMAFT + CMVAFT + CMTAFT

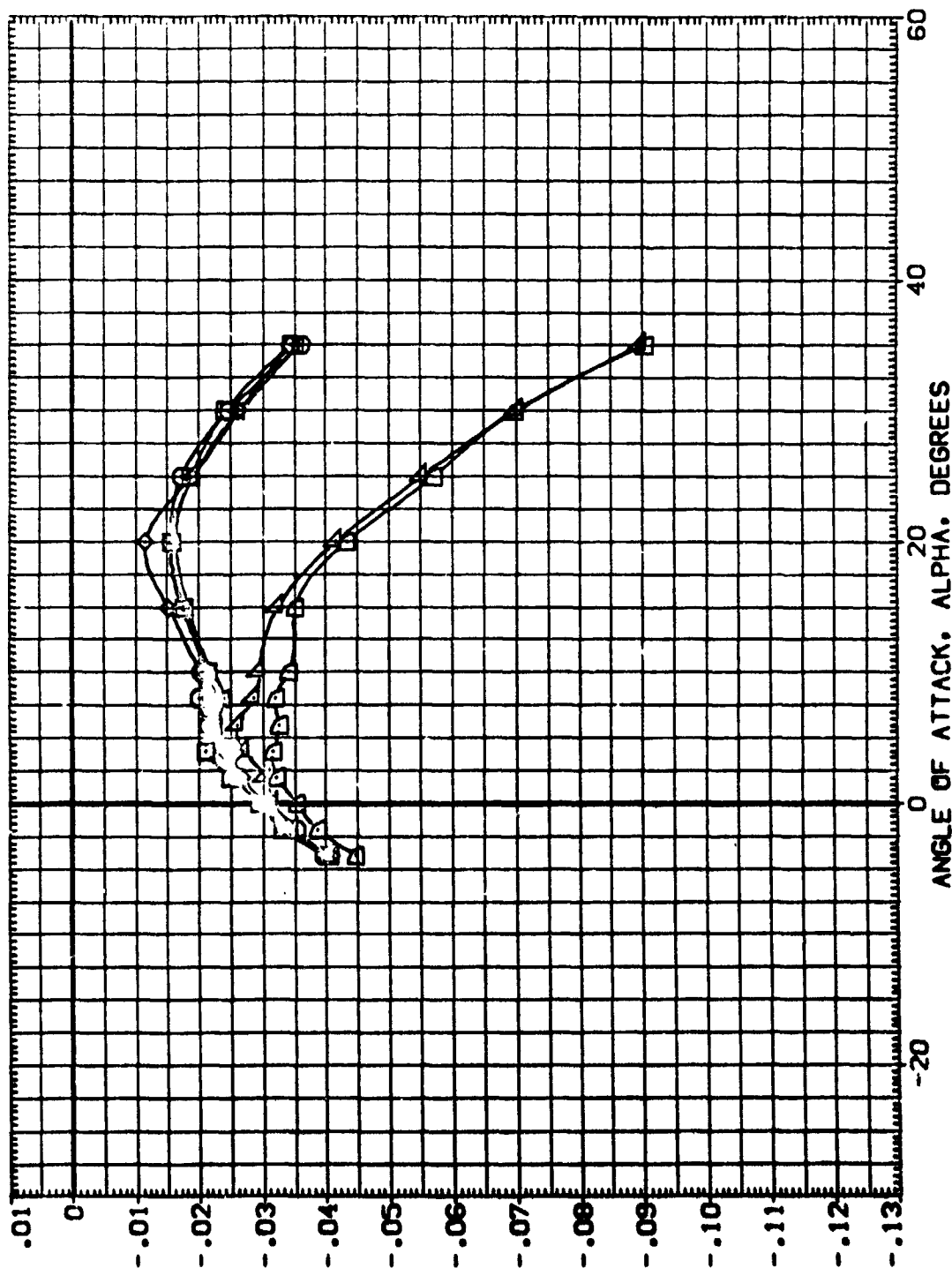


FIG. 6 STING AND NOZZLE TARES
(C)MACH = 4.63



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BOFLAP	SP0BOK	ON	REFERENCE INFORMATION
(002101)	0A-208 LARC UPVT 1057 140 A/B CR8 +DUMMY STING	.000	-11.700	54.920	.000	SREF 2690.0000 SQ.FT.
(002107)	0A-208 LARC UPVT 1057 140 A/B CR8	.000	-11.700	54.920	.000	LREF 1290.3000 INCHES
(002102)	0A-208 LARC UPVT 1057 140 A/B CR8 + DUMMY STING	3.000	-11.700	54.920	.000	BREF 936.6900 INCHES
(002109)	0A-208 LARC UPVT 1057 140 A/B CR8	3.000	-11.700	54.920	.000	MREF 1076.7000 INCHES
(002103)	0A-208 LARC UPVT 1057 140 A/B CR8	.000	16.300	54.920	.000	ZMRP 375.0000 INCHES
(002105)	0A-208 LARC UPVT 1057 140 A/B CR8	.000	16.300	54.920	.000	SCALE .0150

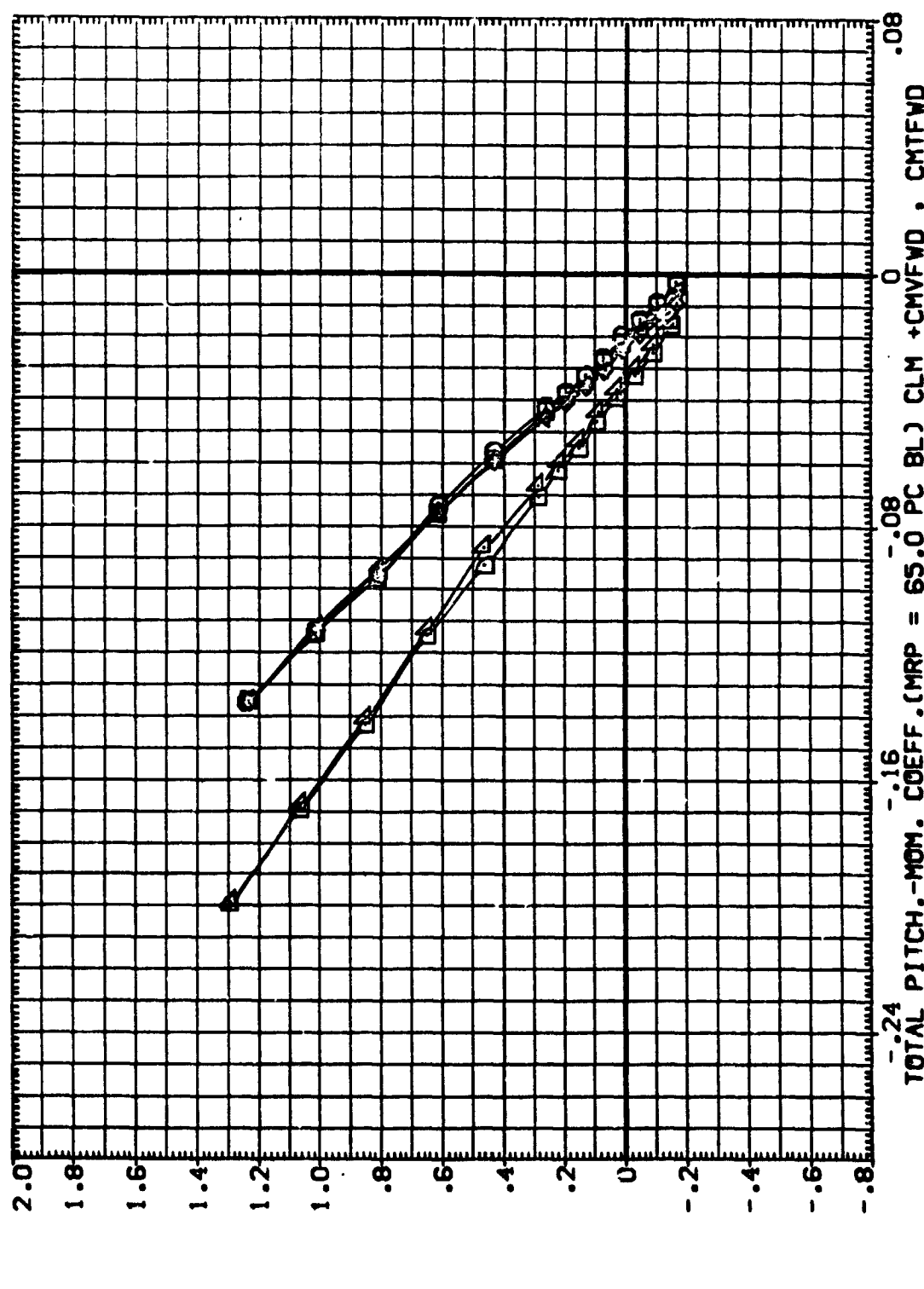
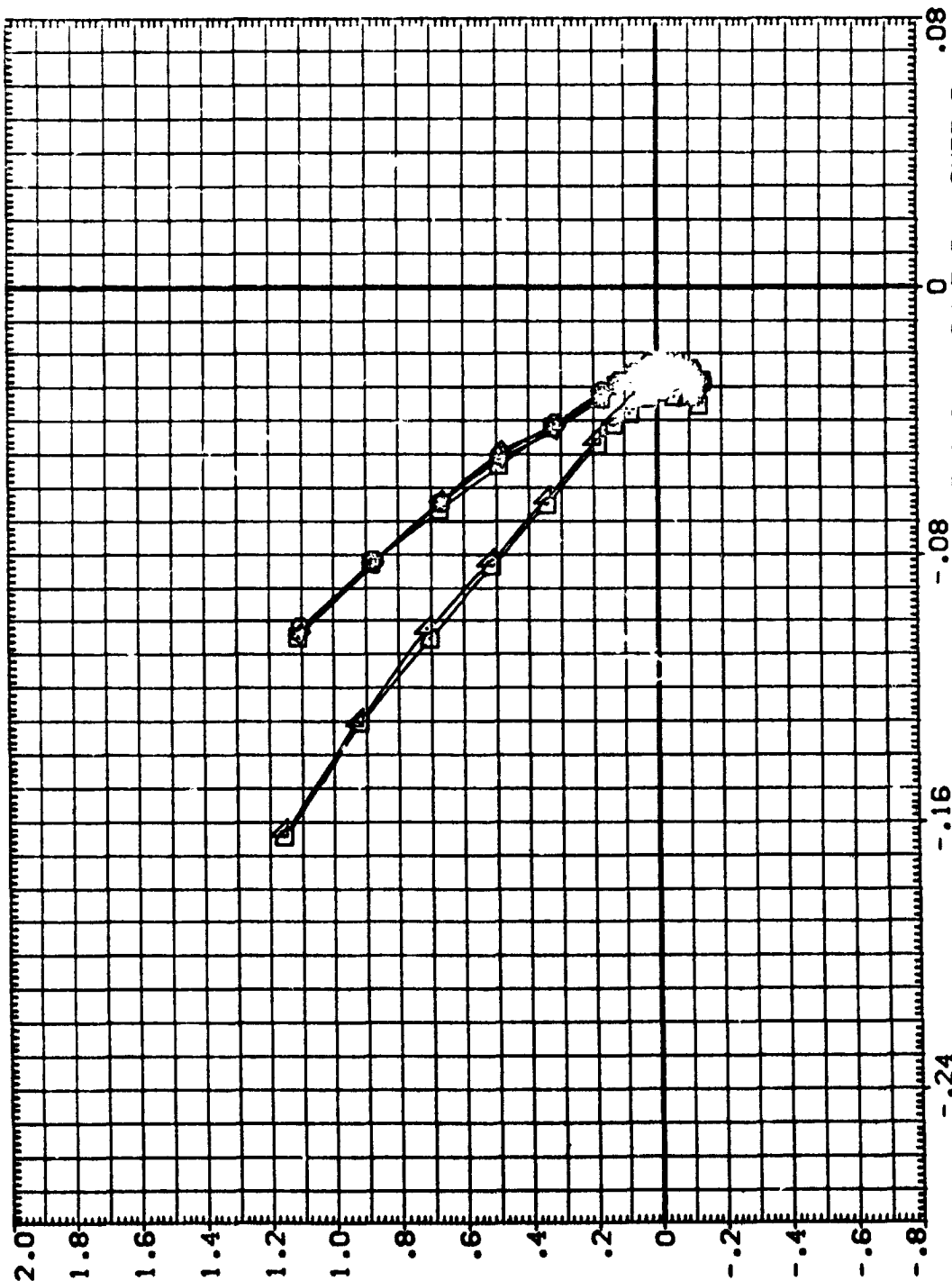


FIG. 6 STING AND NOZZLE TARES
(A)MACH = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BOFLAP	SPDGRK	ELEVON	REFERENCE INFORMATION
[002101]	0A-208 LARC UPVT 1057 140 A/B ORB +DUMMY STING	.000	-11.700	54.920	.000	SREF 2690.0000 50.FT.
[002102]	0A-208 LARC UPVT 1057 140 A/B ORB +DUMMY STING	.000	-11.700	54.920	.000	LREF 1290.3000 INCHES
[002103]	0A-208 LARC UPVT 1057 140 A/B ORB +DUMMY STING	3.000	-11.700	54.920	.000	BREF 936.6900 INCHES
[002104]	0A-208 LARC UPVT 1057 140 A/B ORB +DUMMY STING	3.000	-11.700	54.920	.000	XMRP 1076.7000 INCHES
[002105]	0A-208 LARC UPVT 1057 140 A/B ORB +DUMMY STING	.000	16.300	54.920	.000	ZMRP 375.0000 INCHES
[002106]	0A-208 LARC UPVT 1057 140 A/B ORB +DUMMY STING	.000	16.300	54.920	.000	SCALE .0150



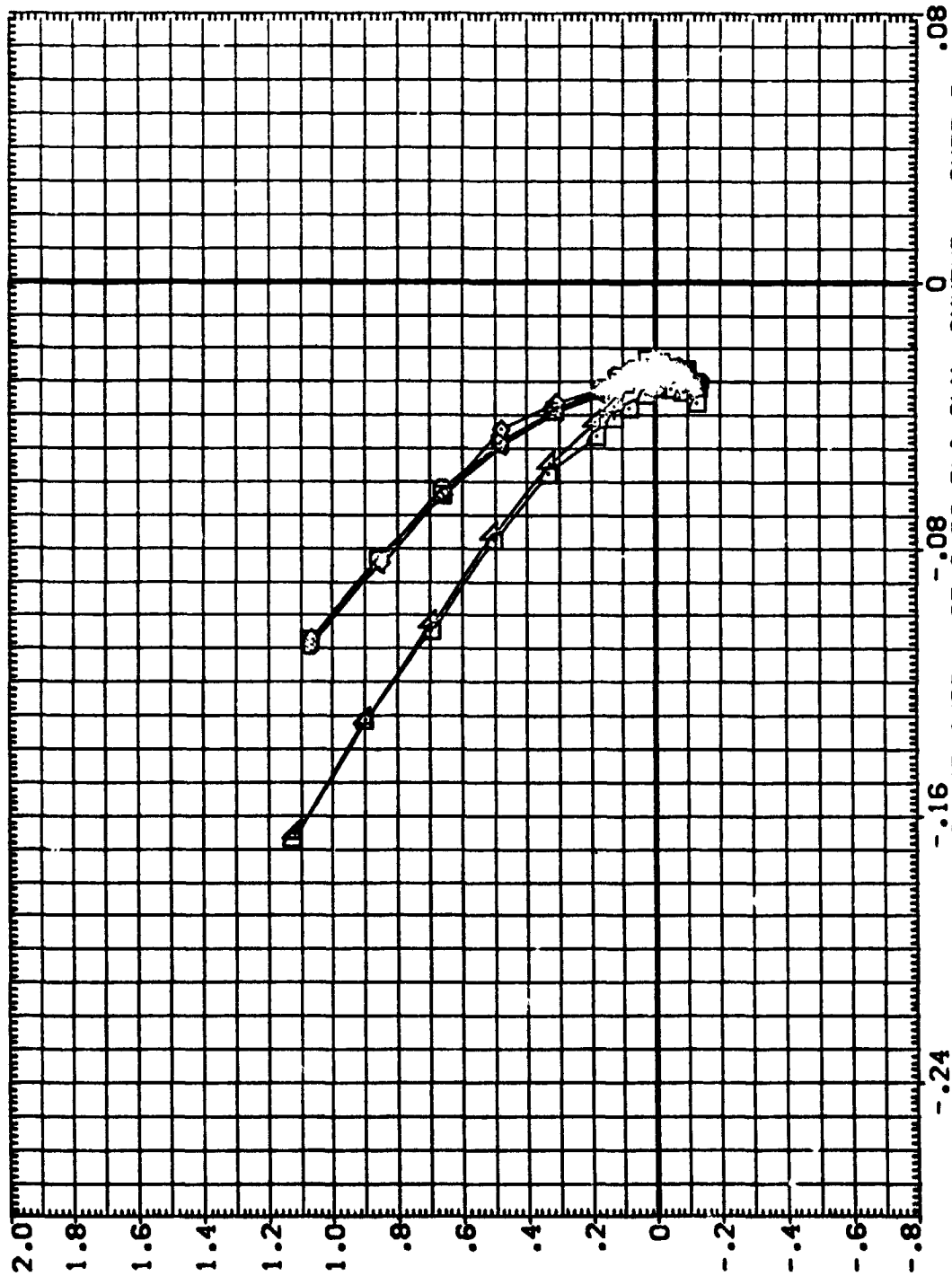
TOTAL NORMAL-FORCE COEFFICIENT(CN + CNV), CNT

TOTAL PITCH.-MOM. COEFF.(MRP = 65.0 PC BL) CLM +CMVFWD + CMTFWD .08

FIG. 6 STING AND NOZZLE TARES

(B)MACH = 3.95

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BOFLAP	SPOROK	ELEVON	REFERENCE INFORMATION
[002101]	CA-208 LARC UPVT 1057 140 A/B ORB +DUMMY STING	.000	-11.700	54.920	.000	SREF 2650.0000 SQ.FT.
[002107]	CA-208 LARC UPVT 1057 140 A/B ORB +DUMMY STING	.000	-11.700	54.920	.000	LREF 1290.3000 INCHES
[002102]	CA-208 LARC UPVT 1057 140 A/B ORB +DUMMY STING	3.000	-11.700	54.920	.000	BREF 936.6900 INCHES
[002108]	CA-208 LARC UPVT 1057 140 A/B ORB +DUMMY STING	3.000	-11.700	54.920	.000	XMRP 1076.7000 INCHES
[002103]	CA-208 LARC UPVT 1057 140 A/B ORB +DUMMY STING	.000	16.300	54.920	.000	YMRP .0000 INCHES
[002109]	CA-208 LARC UPVT 1057 140 A/B ORB +DUMMY STING	.000	16.300	54.920	.000	ZMRP 375.0000 INCHES
						SCALE .0150



CA-208 LARC UPVT 1057 140 A/B ORB +DUMMY STING

FIG. 6 STING AND NOZZLE TARES

(C,MACH = 4.63

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BOFLAP	SPOBRK	ELEVON	REFERENCE INFORMATION
(002101)	DA-208 LARC UPVT 1057 140 A/B DBB +DUMMY STING	.000	-11.700	54.520	.000	SREF 2630.0000 SQ.FT.
(002102)	DA-208 LARC UPVT 1057 140 A/B DBB +DUMMY STING	.000	-11.700	54.520	.000	LREF 1230.3000 INCHES
(002103)	DA-208 LARC UPVT 1057 140 A/B DBB +DUMMY STING	3.000	-11.700	54.520	.000	BREF 935.8500 INCHES
(002104)	DA-208 LARC UPVT 1057 140 A/B DBB +DUMMY STING	.000	-11.700	54.520	.000	XTRP 1076.7000 INCHES
(002105)	DA-208 LARC UPVT 1057 140 A/B DBB +DUMMY STING	.000	16.300	54.520	.000	ZTRP 375.0000 INCHES
						SCALE .0150

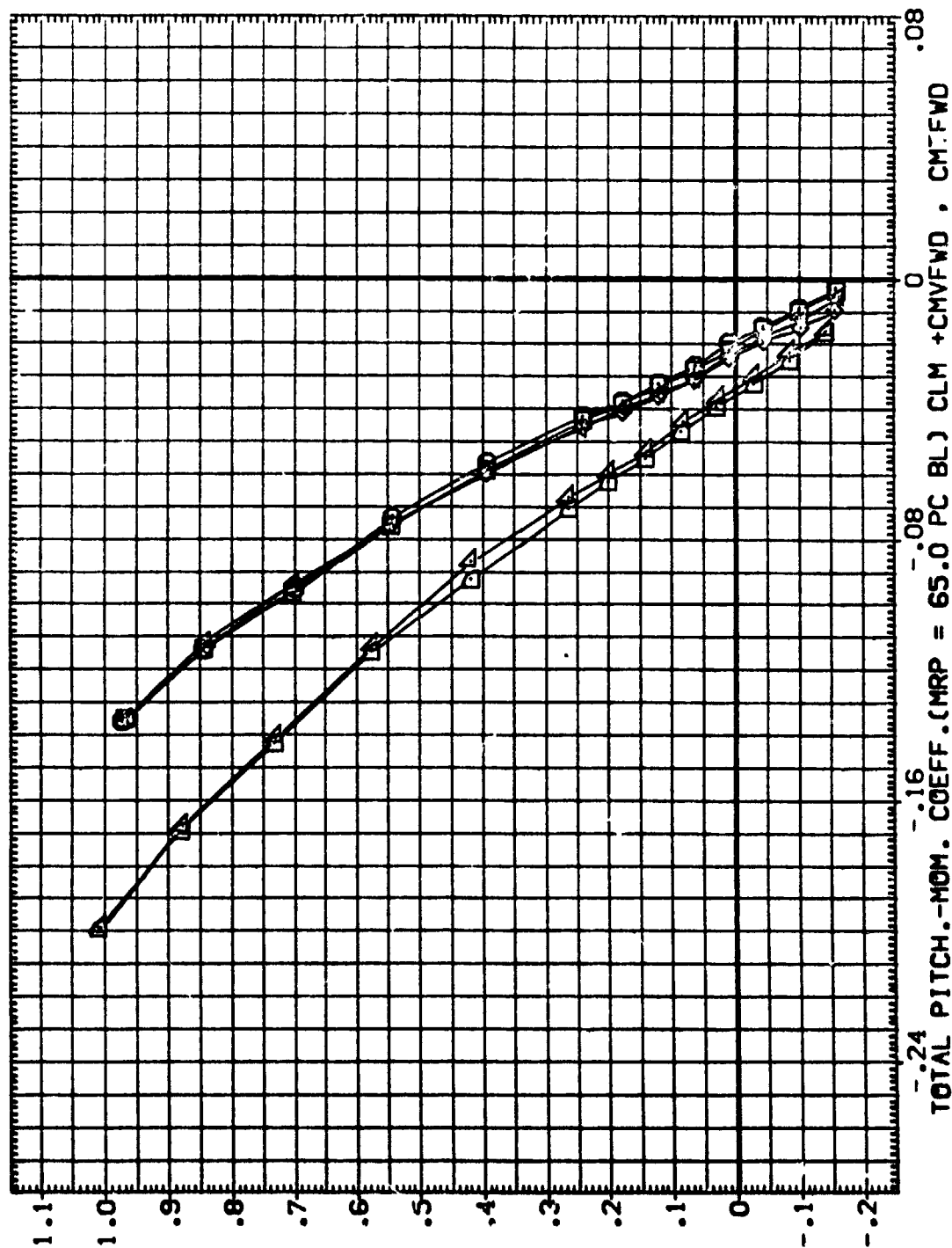


FIG. 6 STING AND NOZZLE TARES

(A)MACH = 2.50

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	BD FLAP	SPOBRK	ELEVON	REFERENCE INFORMATION
(G22101)	□	OA-208 LARC UPVT 1097 140 A/B DBB +DUPPY STING	.000	-11.700	54.920	.000	SREF 2690.0000 SQ.FT.
(G22102)	□	OA-208 LARC UPVT 1097 140 A/B DBB +DUPPY STING	.000	-11.700	54.920	.000	LREF 1290.3000 INCHES
(G22103)	□	OA-208 LARC UPVT 1097 140 A/B DBB +DUPPY STING	3.000	-11.700	54.920	.000	BREF 936.6800 INCHES
(G22104)	□	OA-208 LARC UPVT 1097 140 A/B DBB +DUPPY STING	.000	-11.700	54.920	.000	XMRP 1076.7000 INCHES
(G22105)	□	OA-208 LARC UPVT 1097 140 A/B DBB +DUPPY STING	.000	16.300	54.920	.000	YMRP 375.0000 INCHES
			.000	16.300	54.920	.000	SCALE .0150

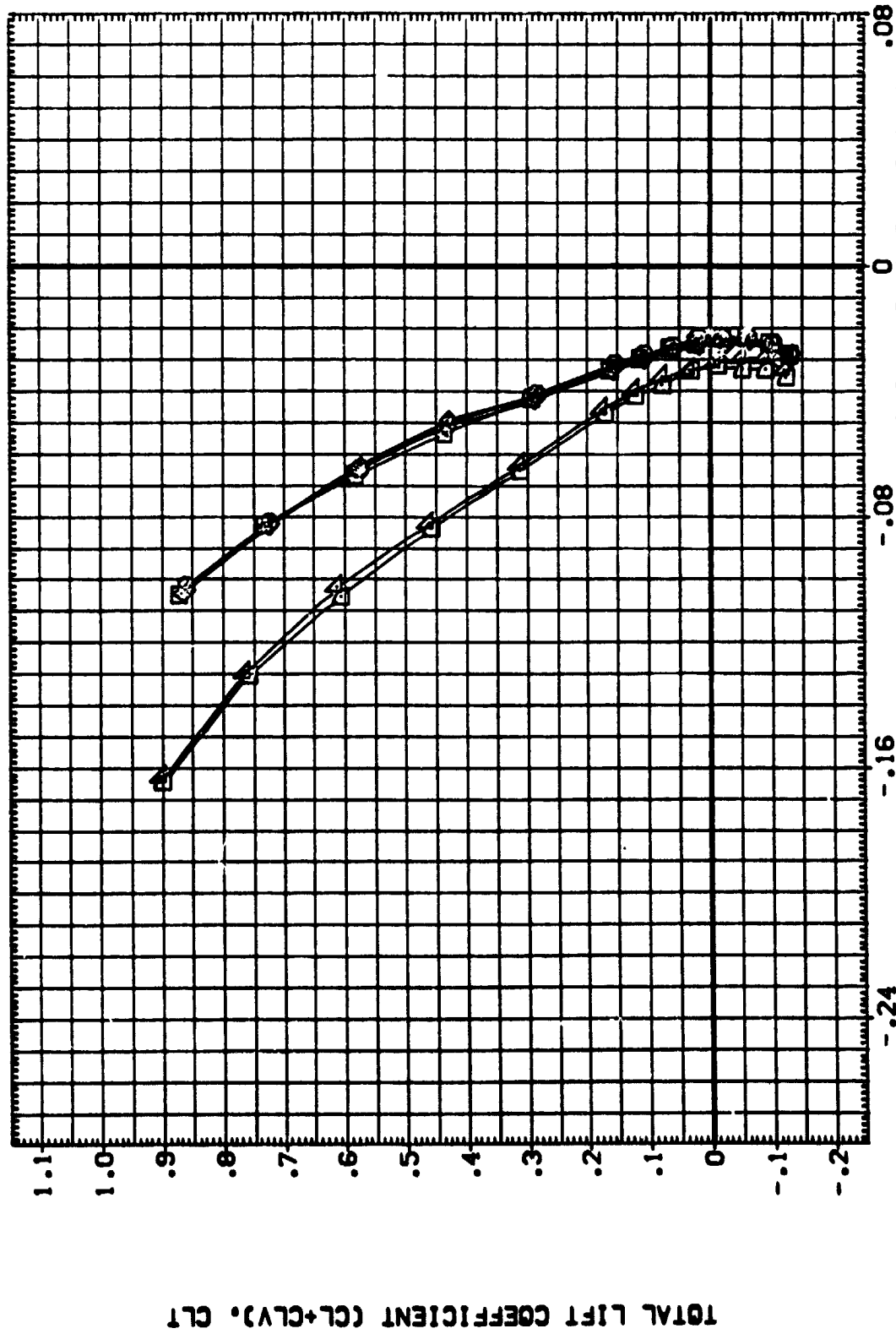


FIG. 6 STING AND NOZZLE TARES
(B)MACH = 3.95

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BOFLAP	SPOBRK	ELEVON	REFERENCE INFORMATION
(002101)	0A-208 LARC UPVT 1057 140 A/B DBB +DUPPY STING	.000	-11.700	54.920	.000	SREF 2690.0000 SQ.FT.
(002102)	0A-208 LARC UPVT 1057 140 A/B DBB +DUPPY STING	.000	-11.700	54.920	.000	LREF 1230.3000 INCH-ES
(002103)	0A-208 LARC UPVT 1057 140 A/B DBB +DUPPY STING	.000	-11.700	54.920	.000	BREF 936.6800 INCH-ES
(002104)	0A-208 LARC UPVT 1057 140 A/B DBB +DUPPY STING	.000	-11.700	54.920	.000	YMRP 1076.7000 INCH-ES
(002105)	0A-208 LARC UPVT 1057 140 A/B DBB +DUPPY STING	.000	-16.300	54.920	.000	ZMRP 375.0000 INCH-ES
(002106)	0A-208 LARC UPVT 1057 140 A/B DBB +DUPPY STING	.000	-16.300	54.920	.000	SCALE .0150

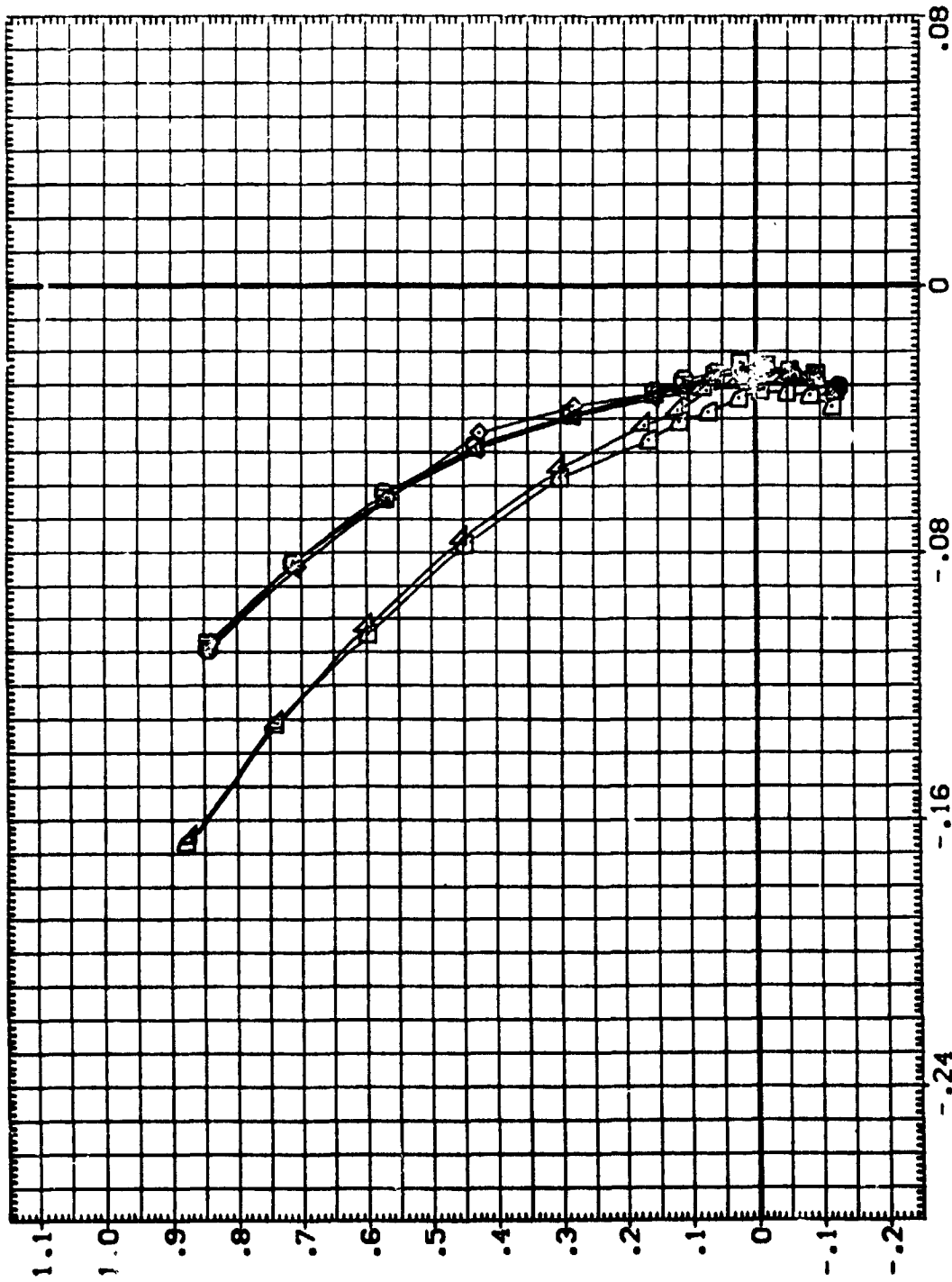


FIG. 6 STING AND NOZZLE TARES
(C)MACH = 4.63

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BDLAP	SPOBCK	ELEVON	REFERENCE INFORMATION
(002101)	DA-208 LARC UPVT 1097 140 A/B 098 +DUMMY STING	.000	-11.700	54.920	.000	SREF 2690.0000 SQ.FT.
(002102)	DA-208 LARC UPVT 1097 140 A/B 098 +DUMMY STING	.000	-11.700	54.920	.000	LREF 1290.3000 INCHES
(002103)	DA-208 LARC UPVT 1097 140 A/B 098 +DUMMY STING	.000	-11.700	54.920	.000	BREF 936.6000 INCHES
(002104)	DA-208 LARC UPVT 1097 140 A/B 098 +DUMMY STING	.000	-11.700	54.920	.000	XMRP 1076.7000 INCHES
(002105)	DA-208 LARC UPVT 1097 140 A/B 098 +DUMMY STING	.000	-11.700	54.920	.000	YMRP 375.0000 INCHES
(002106)	DA-208 LARC UPVT 1097 140 A/B 098 +DUMMY STING	.000	-11.700	54.920	.000	ZMRP 375.0000 INCHES
(002107)	DA-208 LARC UPVT 1097 140 A/B 098 +DUMMY STING	.000	-11.700	54.920	.000	SCALE .0150

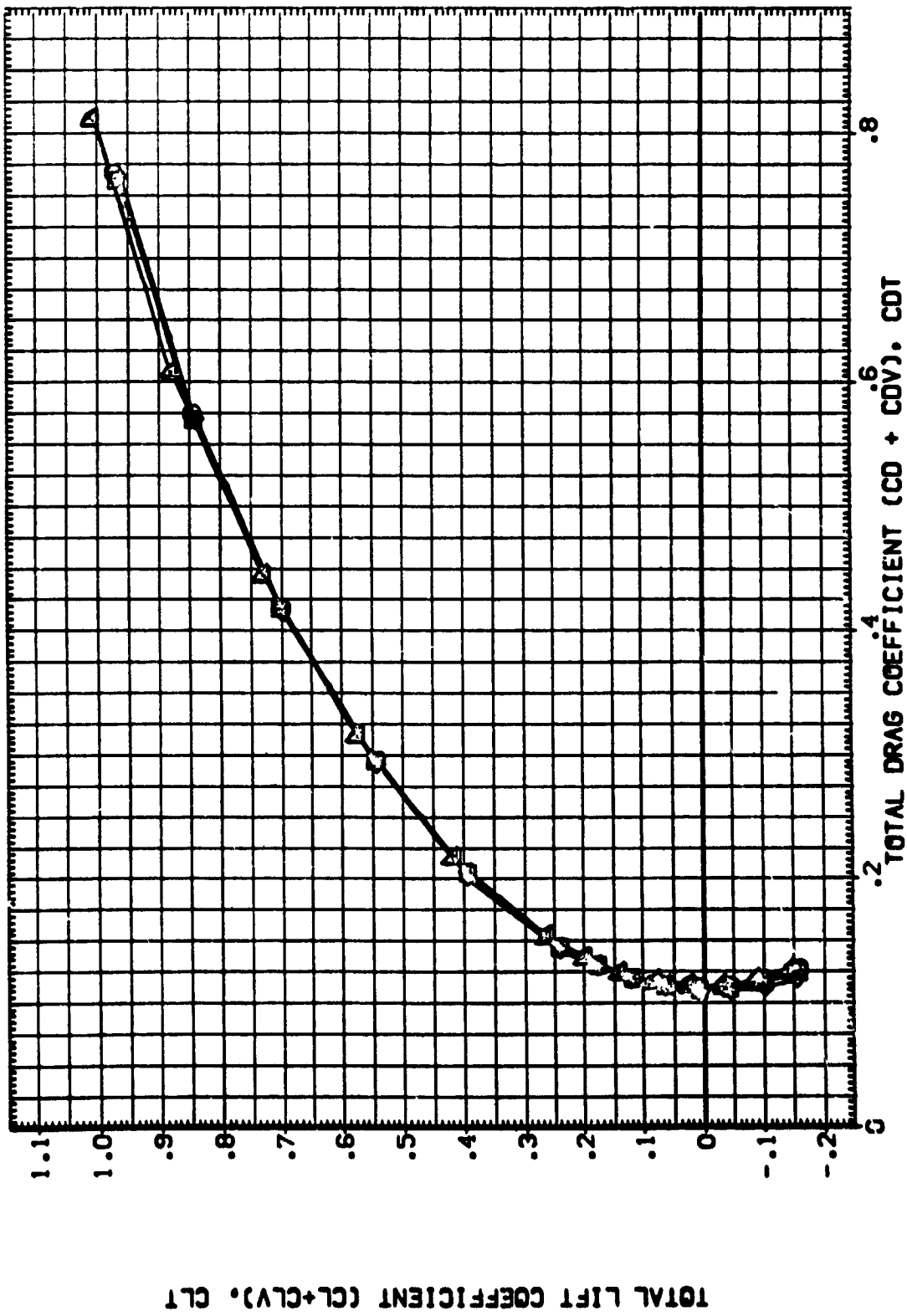


FIG. 6 STING AND NOZZLE TARES
(MACH = 2.50)

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BD FLAP	SPOORK	ELEVON	REFERENCE INFORMATION
(002101)	0A-208 LARC UPVT 1057 140 A/B DRB + DUMMY STING	.000	-11.700	54.920	.000	SREF 2590.0000 SQ.FT.
(002102)	0A-208 LARC UPVT 1057 140 A/B DRB + DUMMY STING	.000	-11.700	54.920	.000	LREF 1230.3000 INCHES
(002103)	0A-208 LARC UPVT 1057 140 A/B DRB + DUMMY STING	3.000	-11.700	54.920	.000	BREF 936.6800 INCHES
(002104)	0A-208 LARC UPVT 1057 140 A/B DRB + DUMMY STING	.000	16.300	54.920	.000	YMRP 1076.7000 INCHES
(002105)	0A-208 LARC UPVT 1057 140 A/B DRB + DUMMY STING	.000	16.300	54.920	.000	ZMRP 375.0000 INCHES
						SCALE .0150

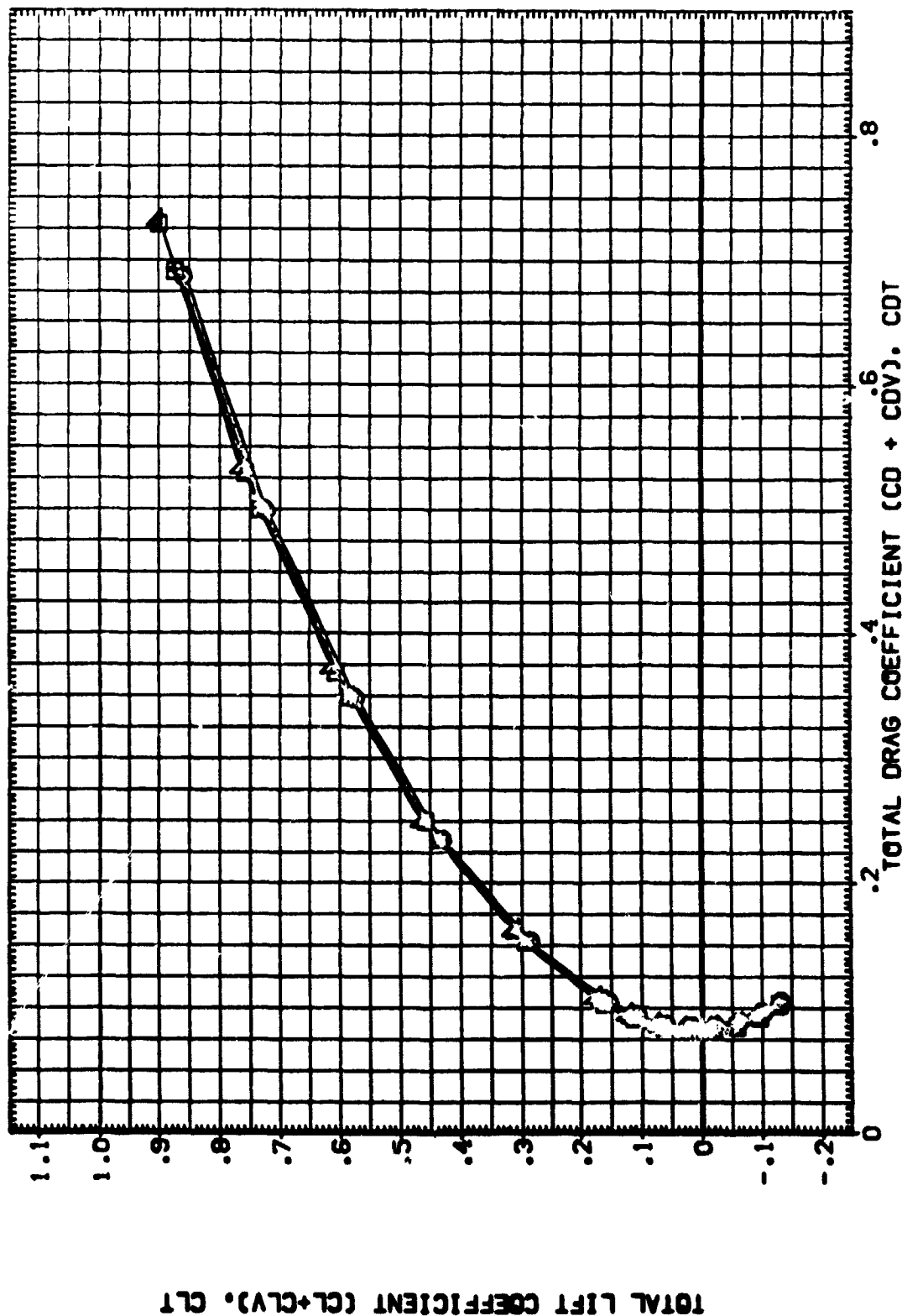


FIG. 6 STING AND NOZZLE TARES

(B)MACH = 3.95



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BDFLAP	SPOBRK	ELEVON	REFERENCE INFORMATION
(002101)	BA-208 LARC UPVT 1057 140 A/B 098 +DUMMY STING	.000	-11.700	54.920	.000	SREF 2650.0000 50.FT.
(002102)	BA-208 LARC UPVT 1057 140 A/B 098 +DUMMY STING	.000	-11.700	54.920	.000	LREF 1290.3000 INCHES
(002103)	BA-208 LARC UPVT 1057 140 A/B 098 +DUMMY STING	3.000	-11.700	54.920	.000	BREF 936.6800 INCHES
(002104)	BA-208 LARC UPVT 1057 140 A/B 098 +DUMMY STING	3.000	-11.700	54.920	.000	XREF 1076.7000 INCHES
(002105)	BA-208 LARC UPVT 1057 140 A/B 098 +DUMMY STING	.000	16.300	54.920	.000	YREF .0000 INCHES
(002106)	BA-208 LARC UPVT 1057 140 A/B 098 +DUMMY STING	.000	16.300	54.920	.000	ZREF 375.0000 INCHES
						SCALE .0150

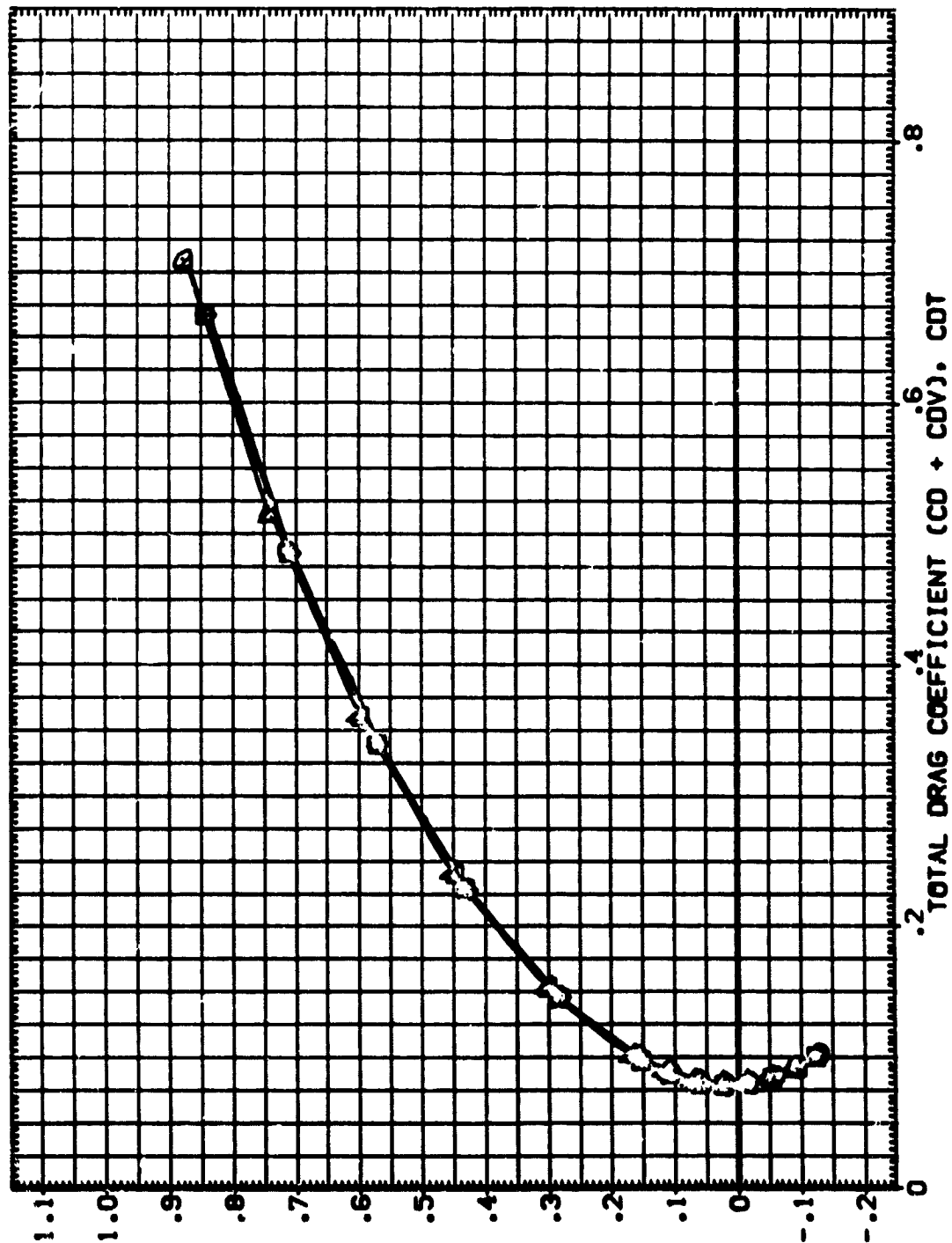


FIG. 6 STING AND NOZZLE TARES

(C)MACH = 4.63

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BDFLAP	S'DBRK	ELEVON	REFERENCE INFORMATION
(002101)	0A-208 LARC UPVT 1057 140 A/B DBB	.000	-11.700	54.520	.000	SREF 2690.0000 SQ.FT.
(002102)	0A-208 LARC UPVT 1057 140 A/B DBB	.000	-11.700	54.520	.000	LREF 1290.3000 INCHES
(002103)	0A-208 LARC UPVT 1057 140 A/B DBB	3.000	-11.700	54.520	.000	BREF 936.6700 INCHES
(002104)	0A-208 LARC UPVT 1057 140 A/B DBB	3.000	-11.700	54.520	.000	XMRP 1076.7000 INCHES
(002105)	0A-208 LARC UPVT 1057 140 A/B DBB	.000	16.300	54.520	.000	YMRP .0000 INCHES
(002106)	0A-208 LARC UPVT 1057 140 A/B DBB	.000	16.300	54.520	.000	ZMRP .0000 INCHES
						SCALE .0150

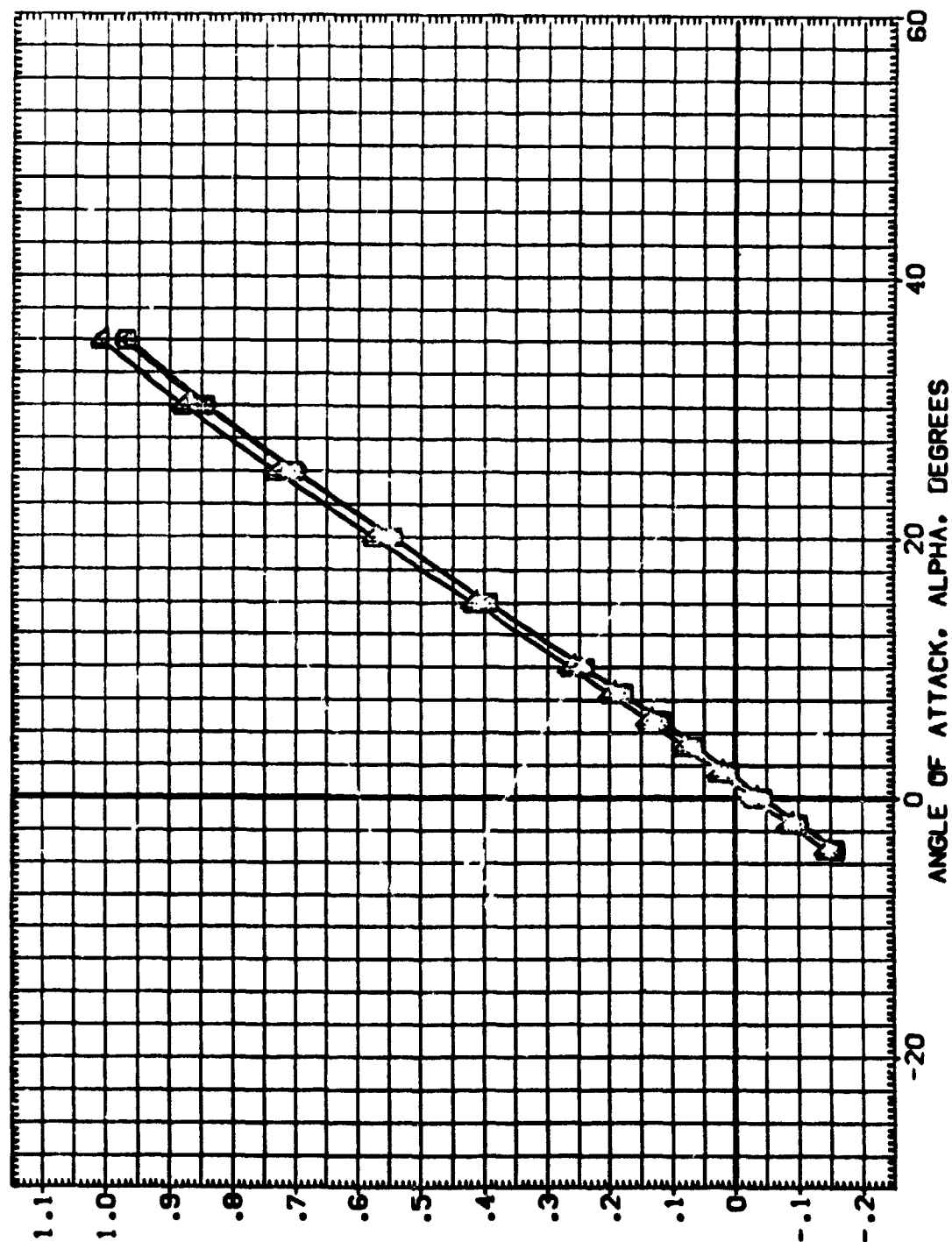


FIG. 6 STING AND NOZZLE TARES

(A)MACH = 2.50



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BD FLAP	SPD BRK	ELEVON	REFERENCE INFORMATION
(002101)	GA-208 LARC UPVT 1097 140 A/B DB	.000	-11.700	54.920	.000	SREF 2650.0000 SO.FT.
(002102)	GA-208 LARC UPVT 1097 140 A/B DB	.000	-11.700	54.920	.000	LREF 1200.3000 INO-ES
(002103)	GA-208 LARC UPVT 1097 140 A/B DB	3.000	-11.700	54.920	.000	BREF 536.6800 INO-ES
(002104)	GA-208 LARC UPVT 1097 140 A/B DB	3.000	-11.700	54.920	.000	WREF 1076.7000 INO-ES
(002105)	GA-208 LARC UPVT 1097 140 A/B DB	.000	16.300	54.920	.000	WREF 375.0000 INO-ES
(002106)	GA-208 LARC UPVT 1097 140 A/B DB	.000	16.300	54.920	.000	ZREF .0150 SCALE

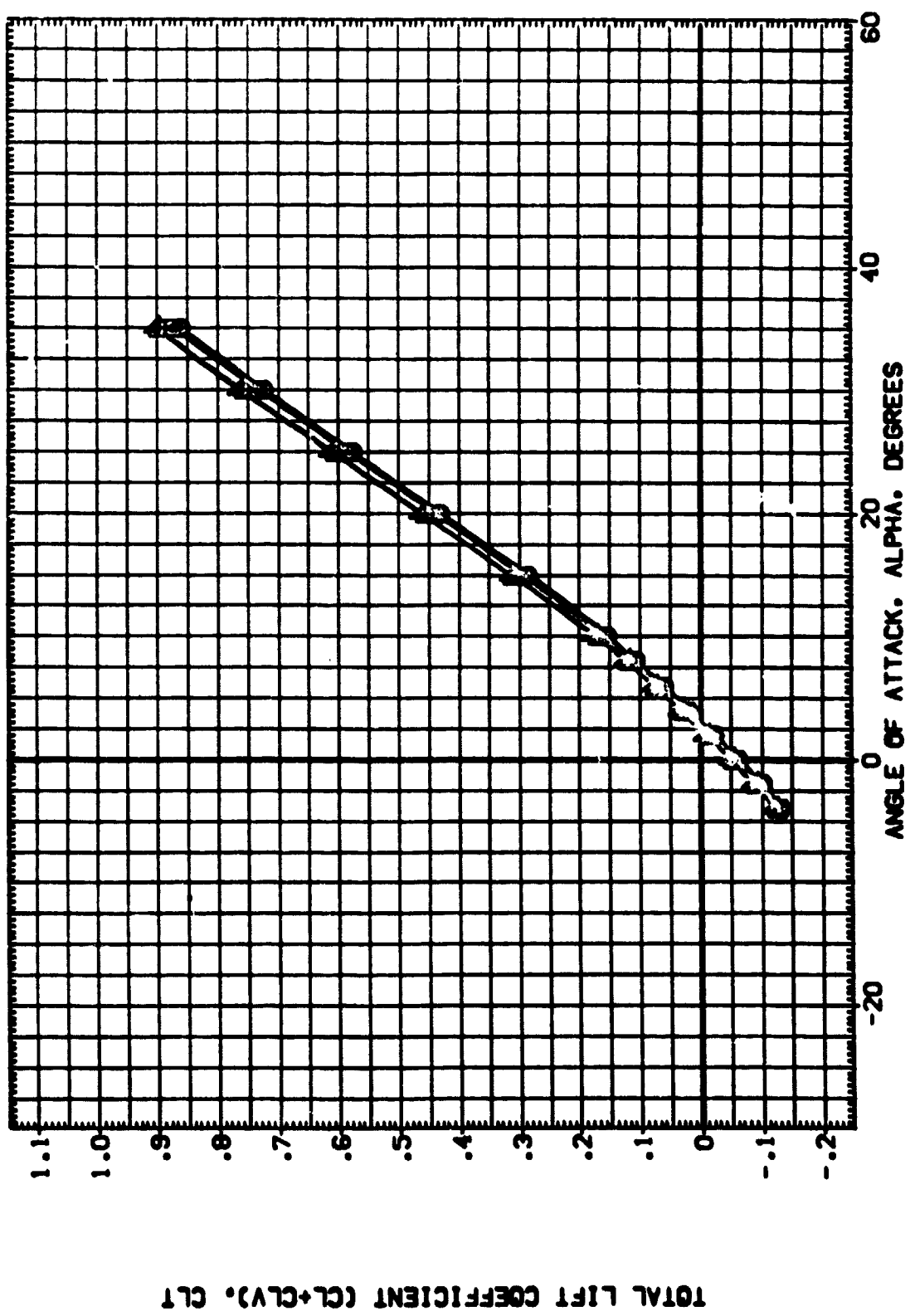
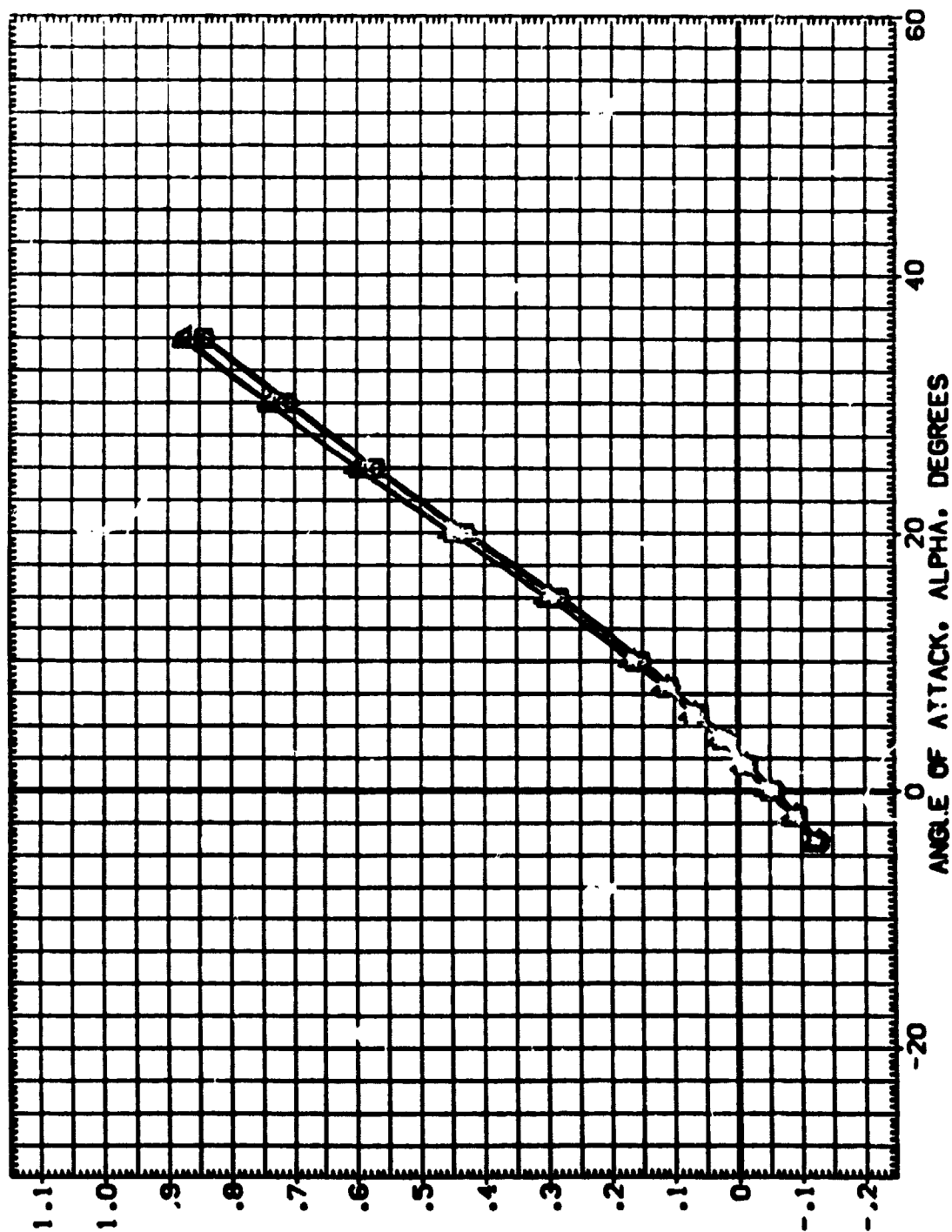


FIG. 6 STING AND NOZZLE TARES

(8)MACH = 3.95

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	REFLAP	SPORK	ELEVON	REFERENCE INFORMATION
(002101)	BA-208 LARC UPVT 1087 140 A/B 000 <QUAY STING	.000	-11.700	54.520	.000	SREF 2690.0000 SO.FT.
(002102)	BA-208 LARC UPVT 1087 140 A/B 000 <QUAY STING	.000	-11.700	54.520	.000	LREF 1290.3000 INCHES
(002103)	BA-208 LARC UPVT 1087 140 A/B 000 <QUAY STING	3.000	-11.700	54.520	.000	SREF 935.6000 INCHES
(002104)	BA-208 LARC UPVT 1087 140 A/B 000 <QUAY STING	.000	-11.700	54.520	.000	XREF 1076.7000 INCHES
(002105)	BA-208 LARC UPVT 1087 140 A/B 000 <QUAY STING	.000	16.300	54.520	.000	YREF 375.0000 INCHES
(002106)	BA-208 LARC UPVT 1087 140 A/B 000 <QUAY STING	.000	16.300	54.520	.000	ZREF .0150 SCALE



TOTAL LIFT COEFFICIENT (CL+CLV), CL1

FIG. 6 STING AND NOZZLE TUBES

(C)MACH = 4.63



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BOFLAP	SPDGRK	ELEVON	REFERENCE INFORMATION
(002101)	GA-208 LARC UPVT 1057 140 A/B 5/8	.000	-11.700	54.920	.000	SREF 2690.0000 SQ.FT.
(002102)	GA-208 LARC UPVT 1057 140 A/B 5/8	.000	-11.700	54.920	.000	LREF 1290.3000 INCHES
(002103)	GA-208 LARC UPVT 1057 140 A/B 5/8	3.000	-11.700	54.920	.000	BREF 936.6900 INCHES
(002104)	GA-208 LARC UPVT 1057 140 A/B 5/8	3.000	-11.700	54.920	.000	XTRP 1076.7000 INCHES
(002105)	GA-208 LARC UPVT 1057 140 A/B 5/8	.000	-11.300	54.920	.000	YTRP .0000 INCHES
(002106)	GA-208 LARC UPVT 1057 140 A/B 5/8	.000	16.300	54.920	.000	ZTRP .0000 INCHES
						SCALE .0150

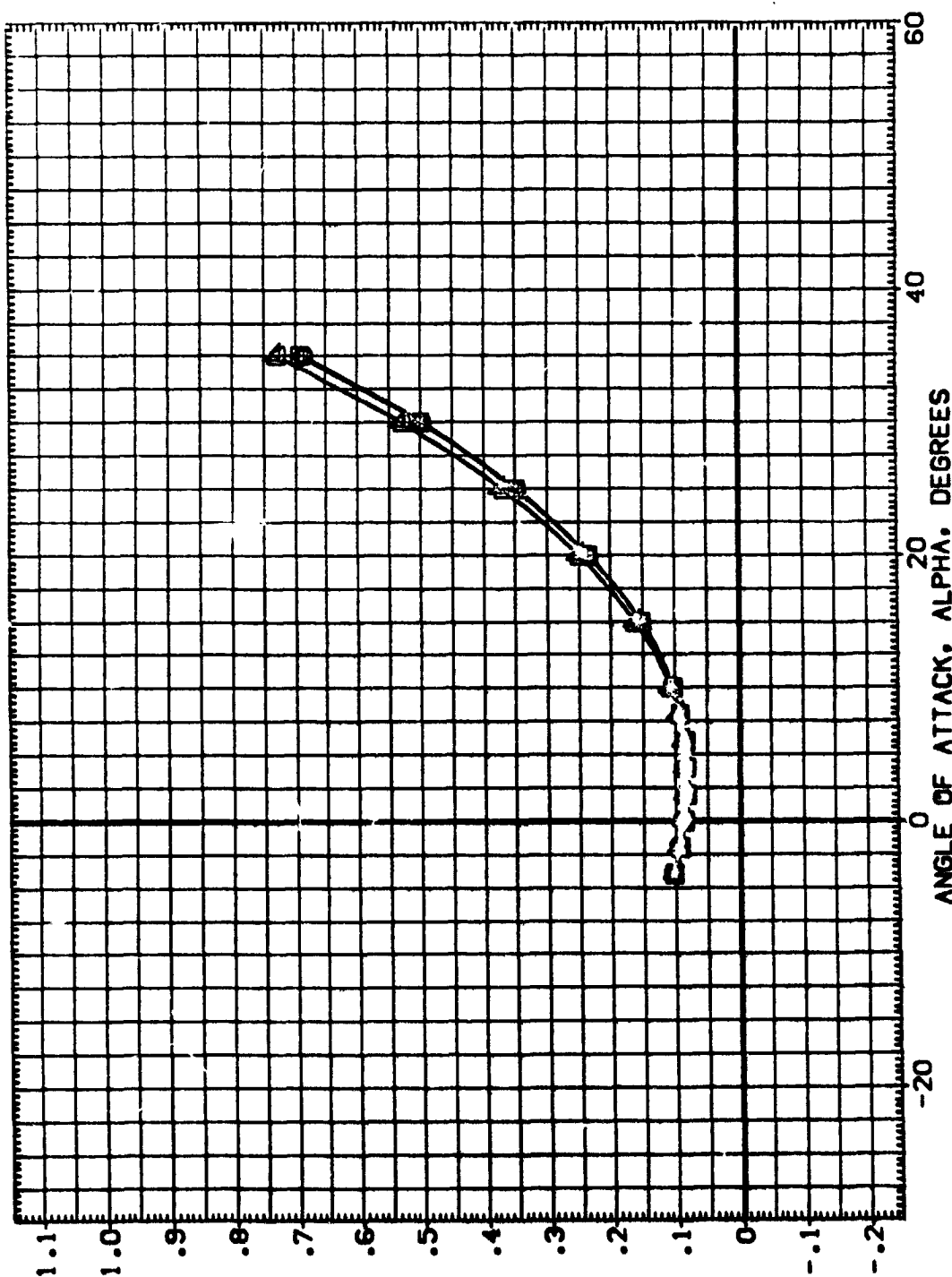


FIG. 6 STING AND NOZZLE TARES

(B)MACH = 3.95



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BOFLAP	SPDRBK	ELEVON	REFERENCE INFORMATION
(002101)	DA-208 LARC UPVT 1057 140 A/B DBB + DUMMY STING	.000	-11.700	54.520	.000	SREF 2690.0000 SQ.FT.
(002102)	DA-208 LARC UPVT 1057 140 A/B DBB + DUMMY STING	.000	-11.700	54.520	.000	LREF 1290.3000 INCHES
(002103)	DA-208 LARC UPVT 1057 140 A/B DBB + DUMMY STING	.000	-11.700	54.520	.000	BREF 936.6300 INCHES
(002104)	DA-208 LARC UPVT 1057 140 A/B DBB + DUMMY STING	.000	-11.700	54.520	.000	XREF 1076.7000 INCHES
(002105)	DA-208 LARC UPVT 1057 140 A/B DBB + DUMMY STING	.000	-11.700	54.520	.000	YREF 375.0000 INCHES
(002106)	DA-208 LARC UPVT 1057 140 A/B DBB + DUMMY STING	.000	-11.700	54.520	.000	ZREF 375.0000 INCHES
(002107)	DA-208 LARC UPVT 1057 140 A/B DBB + DUMMY STING	.000	-11.700	54.520	.000	SCALE .0150

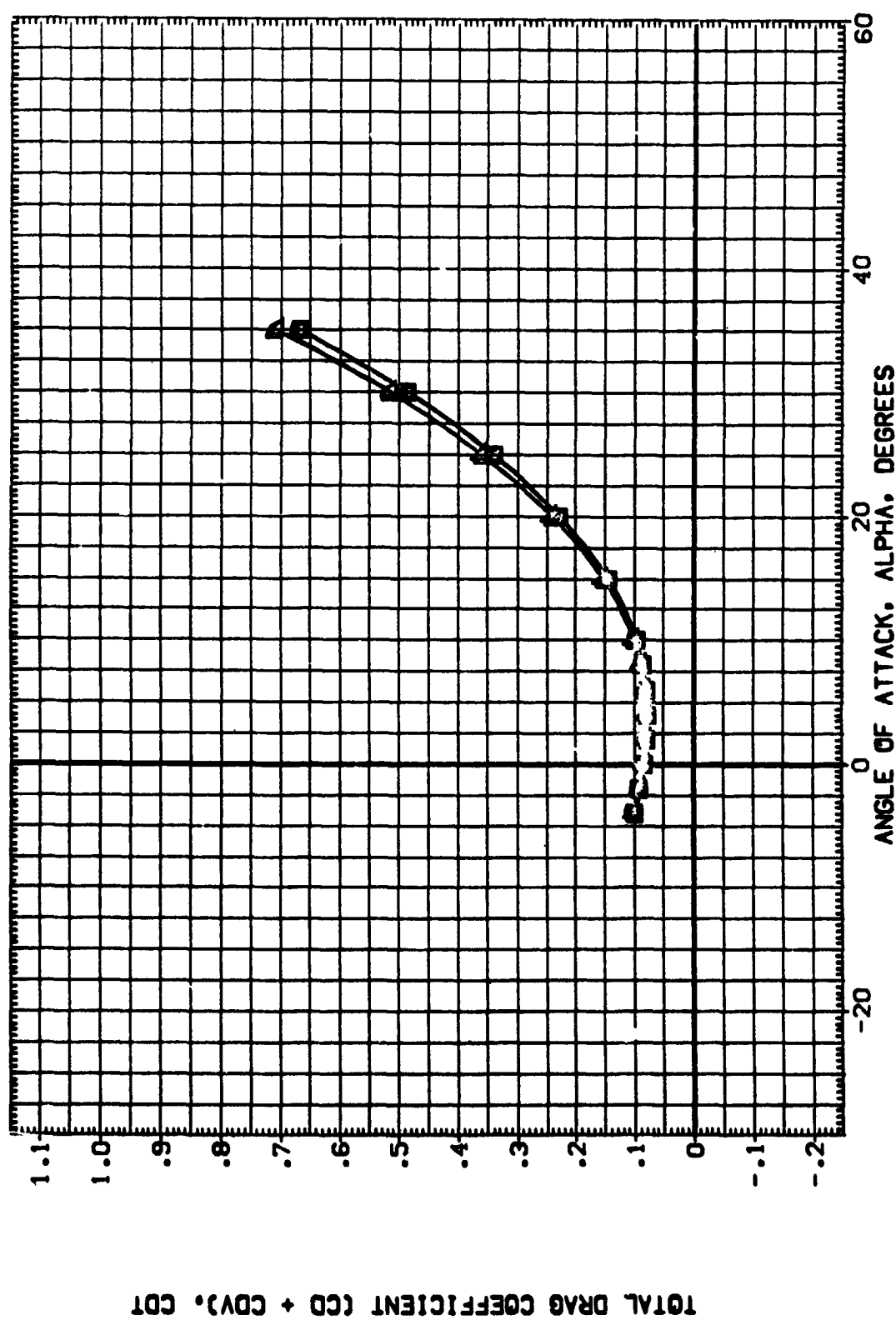


FIG. 6 STING AND NOZZLE TARES

(C)MACH = 4.63

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BOFLAP	SPOBRK	ELEVON	REFERENCE INFORMATION
(602101)	BA-208 LARC UPVT 1097 140 A/B ORB +DUMMY STING	.000	-11.700	54.920	.000	2690.0000 SQ.FT.
(602102)	BA-208 LARC UPVT 1097 140 A/B ORB +DUMMY STING	.000	-11.700	54.920	.000	1290.3000 INCHES
(602103)	BA-208 LARC UPVT 1097 140 A/B ORB +DUMMY STING	.000	-11.700	54.920	.000	936.6900 INCHES
(602104)	BA-208 LARC UPVT 1097 140 A/B ORB +DUMMY STING	.000	-11.700	54.920	.000	1076.7000 INCHES
(602105)	BA-208 LARC UPVT 1097 140 A/B ORB +DUMMY STING	.000	-11.700	54.920	.000	375.0000 INCHES
(602106)	BA-208 LARC UPVT 1097 140 A/B ORB +DUMMY STING	.000	-11.700	54.920	.000	SCALE .0150

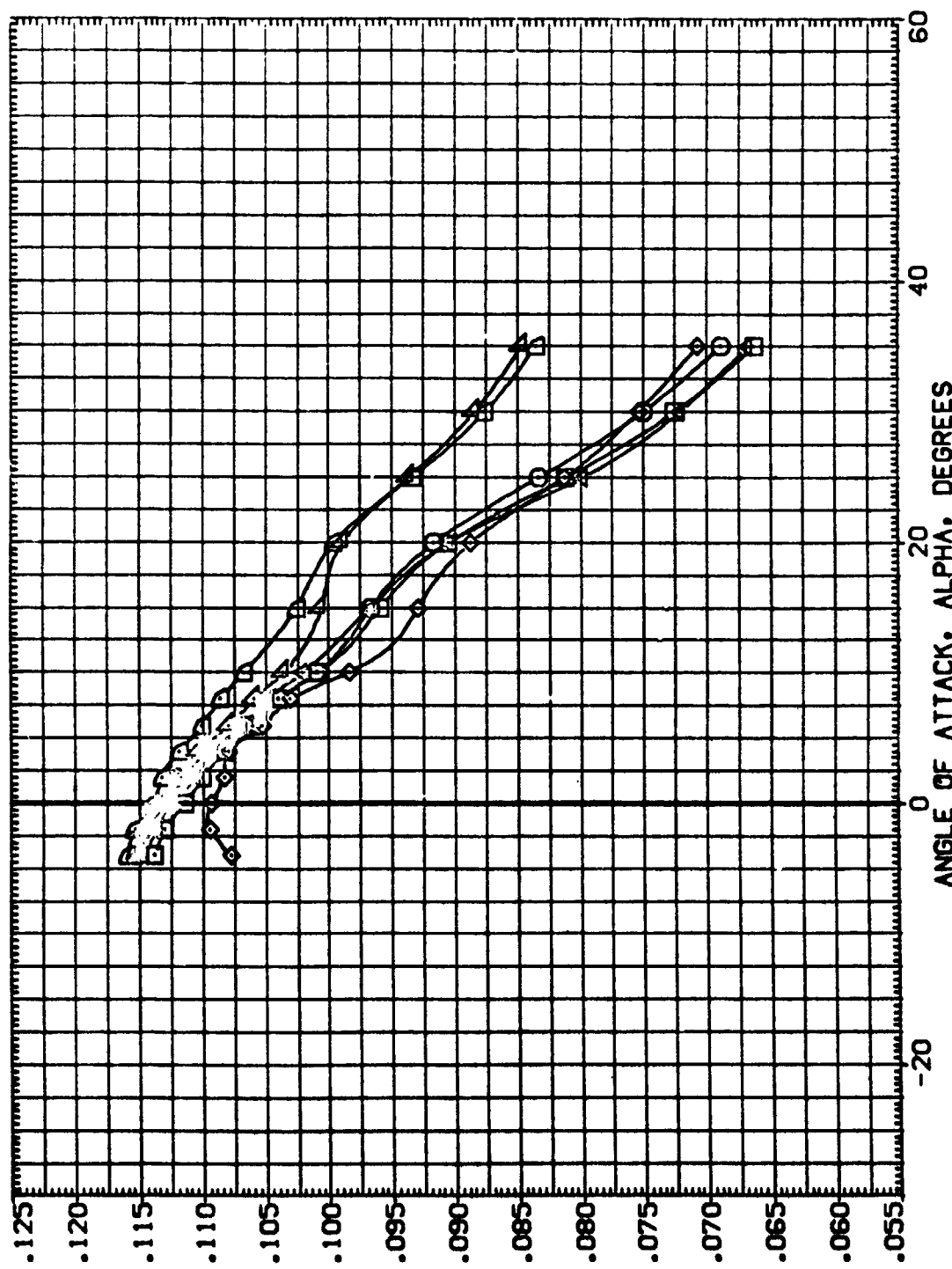


FIG. 6 STING AND NOZZLE TARES

(A)MACH = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BOFLAP	SPORK	ELEVON	REFERENCE INFORMATION
(002101)	GA-208 LARC UPVT 1057 140 A/B DBB + DUMMY STING	.000	-11.700	54.520	.000	SREF 2690.0000 SQ.FT.
(002102)	GA-208 LARC UPVT 1057 140 A/B DBB + DUMMY STING	.000	-11.700	54.520	.000	LREF 1290.3000 INCHES
(002103)	GA-208 LARC UPVT 1057 140 A/B DBB + DUMMY STING	3.000	-11.700	54.520	.000	BREF 936.6800 INCHES
(002104)	GA-208 LARC UPVT 1057 140 A/B DBB + DUMMY STING	3.000	-11.700	54.520	.000	XMRP 1076.7000 INCHES
(002105)	GA-208 LARC UPVT 1057 140 A/B DBB + DUMMY STING	.000	16.300	54.520	.000	YMRP 375.0000 INCHES
						SCALE .0150

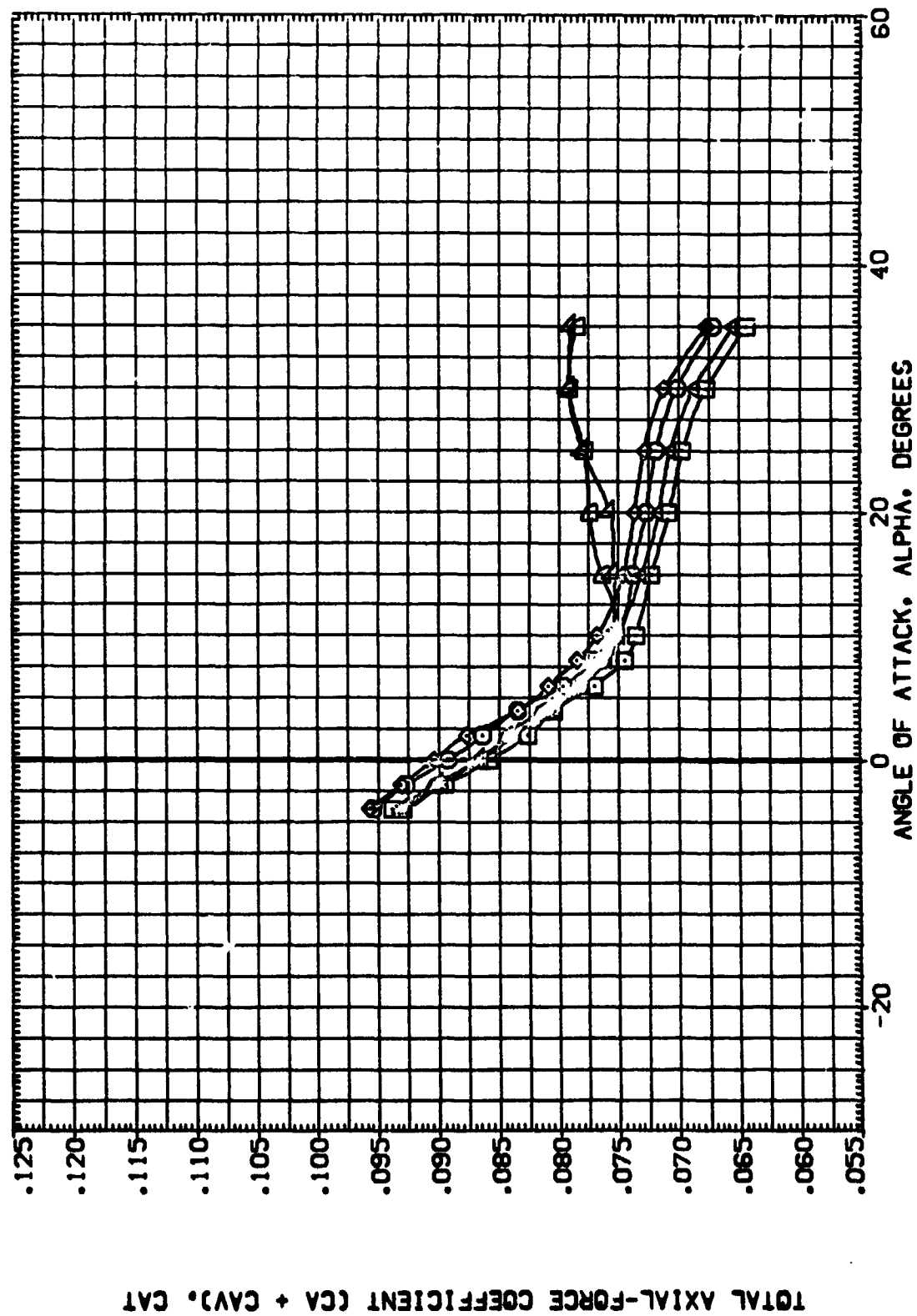


FIG. 6 STING AND NOZZLE TARES

(B)MACH = 3.95

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BD FLAP	SPOBRK	ELEVON	REFERENCE INFORMATION
(002101)	DA-208 LARC UPVT 1097 140 A/B 098 +DUPPY STING	.000	-11.700	54.920	.000	SREF 2690.0000 SQ.FT.
(002102)	DA-208 LARC UPVT 1097 140 A/B 098 +DUPPY STING	.000	-11.700	54.920	.000	LREF 1290.3000 INCHES
(002103)	DA-208 LARC UPVT 1097 140 A/B 098 +DUPPY STING	.000	-11.700	54.920	.000	BREF 936.6800 INCHES
(002104)	DA-208 LARC UPVT 1097 140 A/B 098 +DUPPY STING	.000	-11.700	54.920	.000	XMRP 1076.7000 INCHES
(002105)	DA-208 LARC UPVT 1097 140 A/B 098 +DUPPY STING	.000	-11.700	54.920	.000	YMRP 375.0000 INCHES
(002106)	DA-208 LARC UPVT 1097 140 A/B 098 +DUPPY STING	.000	-11.700	54.920	.000	SCALE .0150

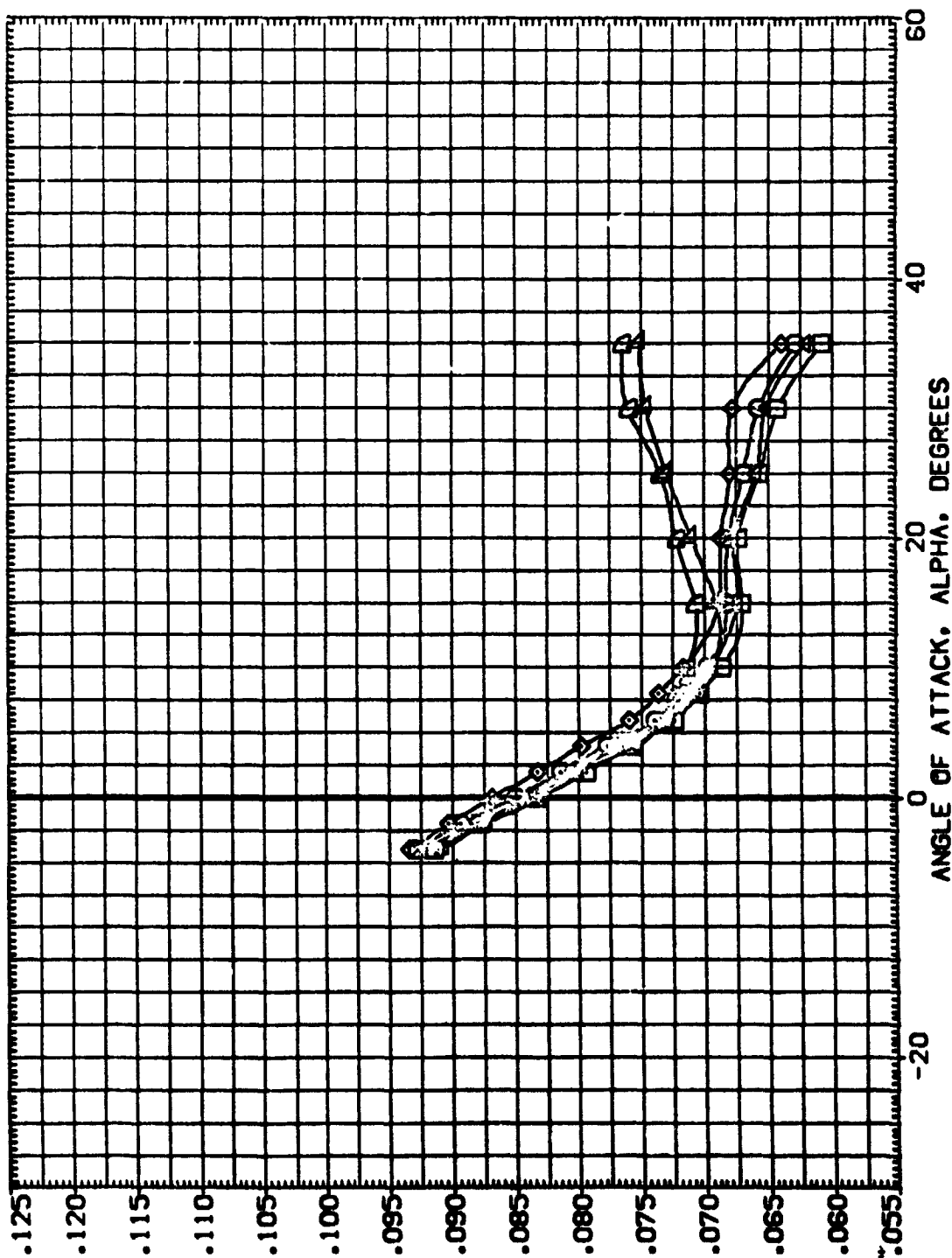


FIG. 6 STING AND NOZZLE TARES

(C)MACH = 4.63

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BOFLAP	SPOBRK	ELEVON	REFERENCE INFORMATION
(E02104)	GA-208 LARC UPVT 1057 140 A/B ORB +QUIN STING	.000	16.300	54.920	15.000	SREF 2690.0000 SO.FT.
(E02110)	GA-208 LARC UPVT 1057 140 A/B ORB +QUIN STING	.000	16.300	54.920	15.000	LREF 1290.3000 INCHES
(E02105)	GA-208 LARC UPVT 1057 140 A/B ORB +QUIN STING	.000	-11.700	54.920	-40.000	BREF 936.6800 INCHES
(E02106)	GA-208 LARC UPVT 1057 140 A/B ORB +QUIN STING	.000	-11.700	54.920	-40.000	XREF 1076.7000 INCHES
						YREF .0000 INCHES
						ZREF 375.0000 INCHES
						SCALE .0150 SCALE

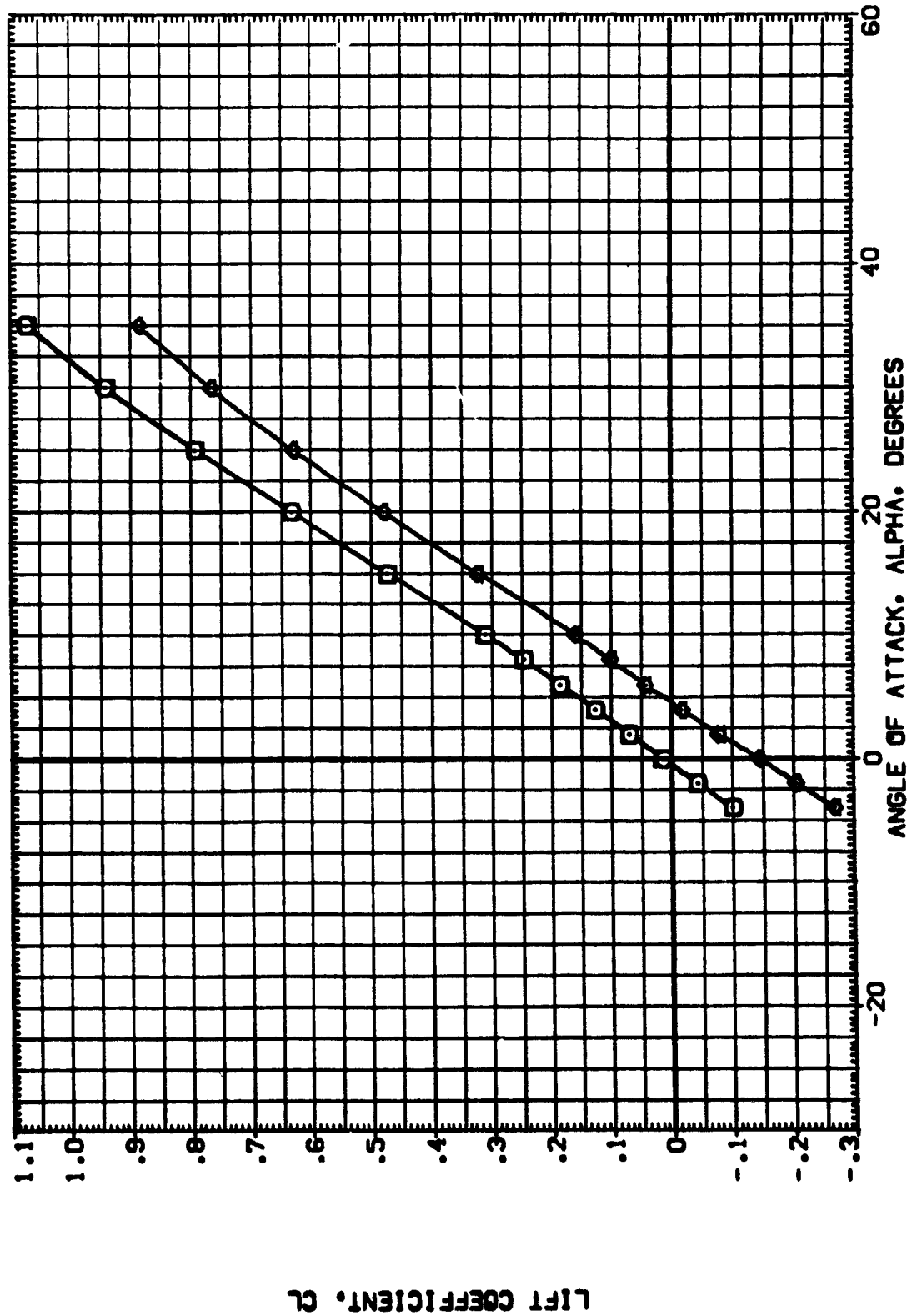


FIG. 6 STING AND NOZZLE TARES

(A)MACH = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BOFLAP	SPDRK	ELEVON	REFERENCE INFORMATION
(E02104)	0A-208 LARC UPVT 1087 140 A/B 0RB	.000	16.300	54.520	15.000	SREF 2590.0000 SQ.FT.
(E02105)	0A-208 LARC UPVT 1087 140 A/B 0RB	.000	16.300	54.520	15.000	LREF 1290.3000 INCHES
(E02106)	0A-208 LARC UPVT 1087 140 A/B 0RB	.000	-11.700	54.520	-40.000	BREF 936.6500 INCHES
(E02107)	0A-208 LARC UPVT 1087 140 A/B 0RB	.000	-11.700	54.520	-40.000	YMRP 1076.7000 INCHES
						ZMRP .0000 INCHES
						SCALE 375.0000 INCHES
						SCALE .0150

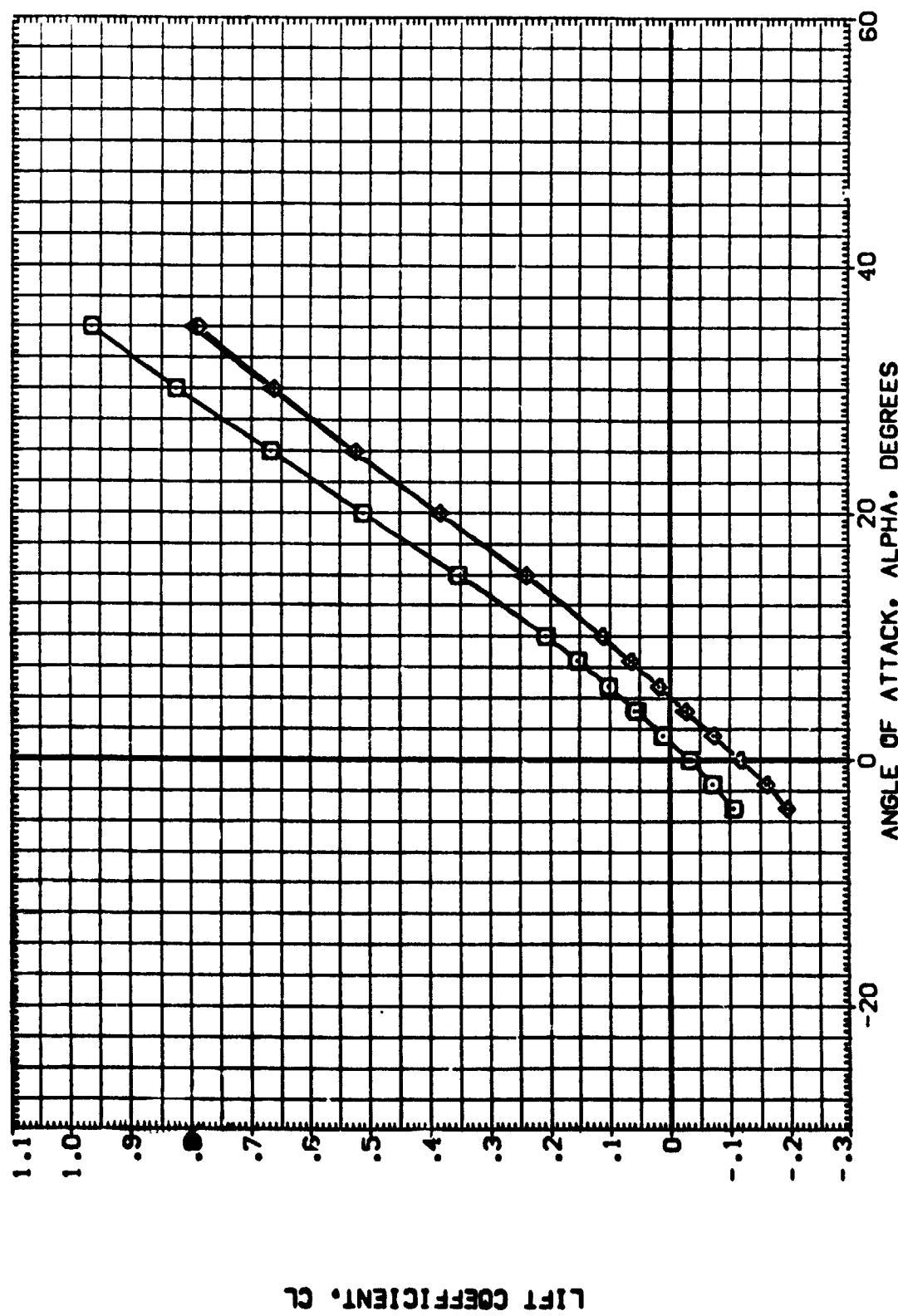
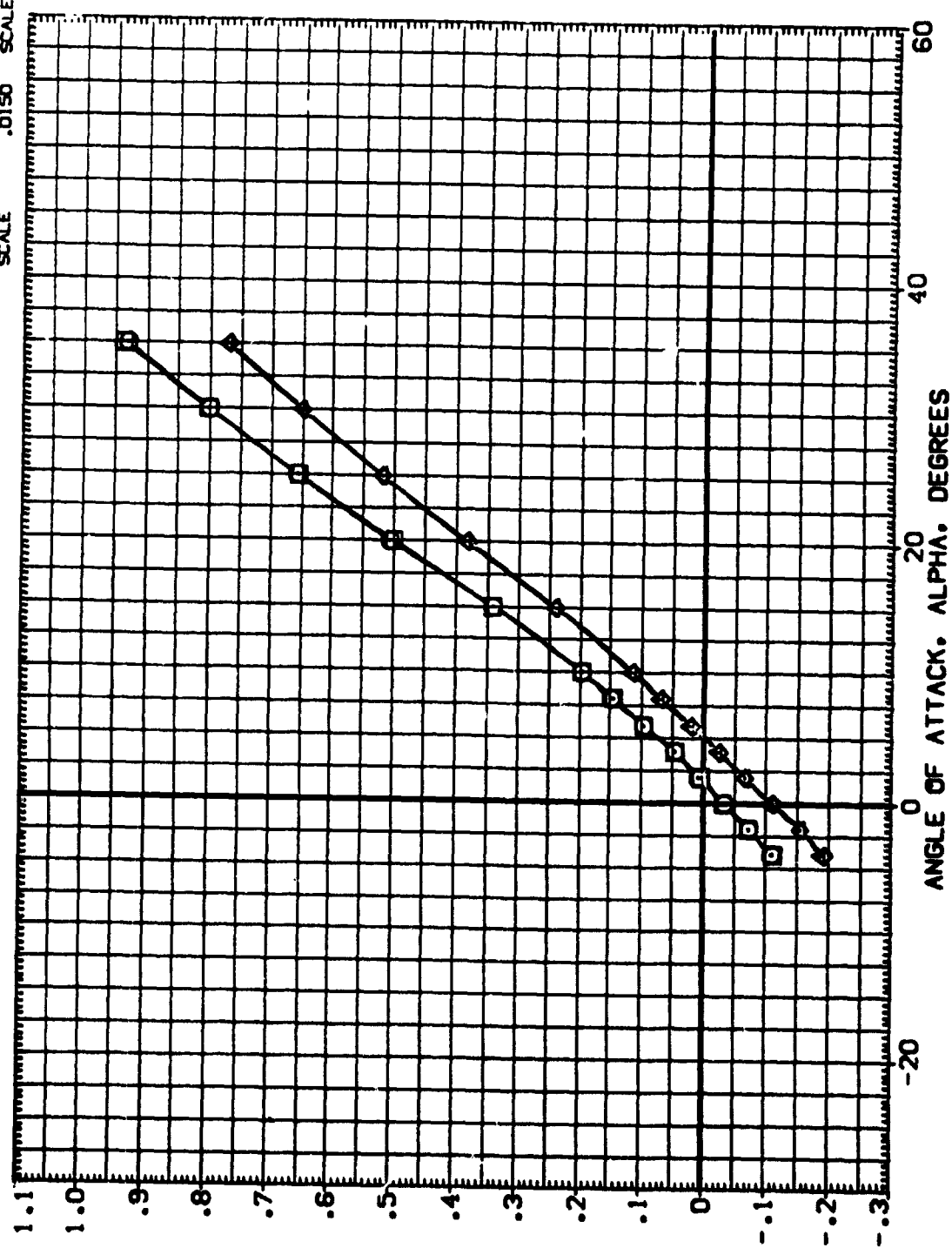


FIG. 6 STING AND NOZZLE TARES
(B)MACH = 3.95

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BDFLAP	SPDRK	ELEVON	REFERENCE INFORMATION
(EQ2104)	0A-208 LARC UPVT 1097 140 A/B DB8	.000	16.300	54.920	15.000	SREF 2690.0000 50.FT.
(EQ2110)	0A-208 LARC UPVT 1097 140 A/B DB8	.000	16.300	54.920	15.000	LREF 1290.3000 INCHES
(EQ2105)	0A-208 LARC UPVT 1097 140 A/B DB8	.000	-11.700	54.920	-40.000	BREF 936.6800 INCHES
(EQ2106)	0A-208 LARC UPVT 1097 140 A/B DB8	.000	-11.700	54.920	-40.000	XMRP 1076.7000 INCHES
						YMRP .0000 INCHES
						ZMRP 375.0000 INCHES
						SCALE .0150 SCALE



LIFT COEFFICIENT, CL

FIG. 6 STING AND NOZZLE TARES

(C)MACH = 4.63

DATA SET SYMBOL CONFIGURATION DESCRIPTION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BD/LAP	SP/BRK	ELEVON	REFERENCE INFORMATION
(E02104)	GA-208 LARC UPVT 1057 140 A/B DB	.000	16.300	54.920	15.000	SREF 2690.0000 SQ.FT.
(E02110)	GA-208 LARC UPVT 1057 140 A/B DB	.000	16.300	54.920	15.000	LREF 1290.3000 INCHES
(E02105)	GA-208 LARC UPVT 1057 140 A/B DB	.000	-11.700	54.920	-40.000	SREF 536.5800 INCHES
(E02106)	GA-208 LARC UPVT 1057 140 A/B DB	.000	-11.700	54.920	-40.000	XREF 1076.7000 INCHES
						YREF .0000 INCHES
						ZREF 375.0000 INCHES
						SCALE .0150

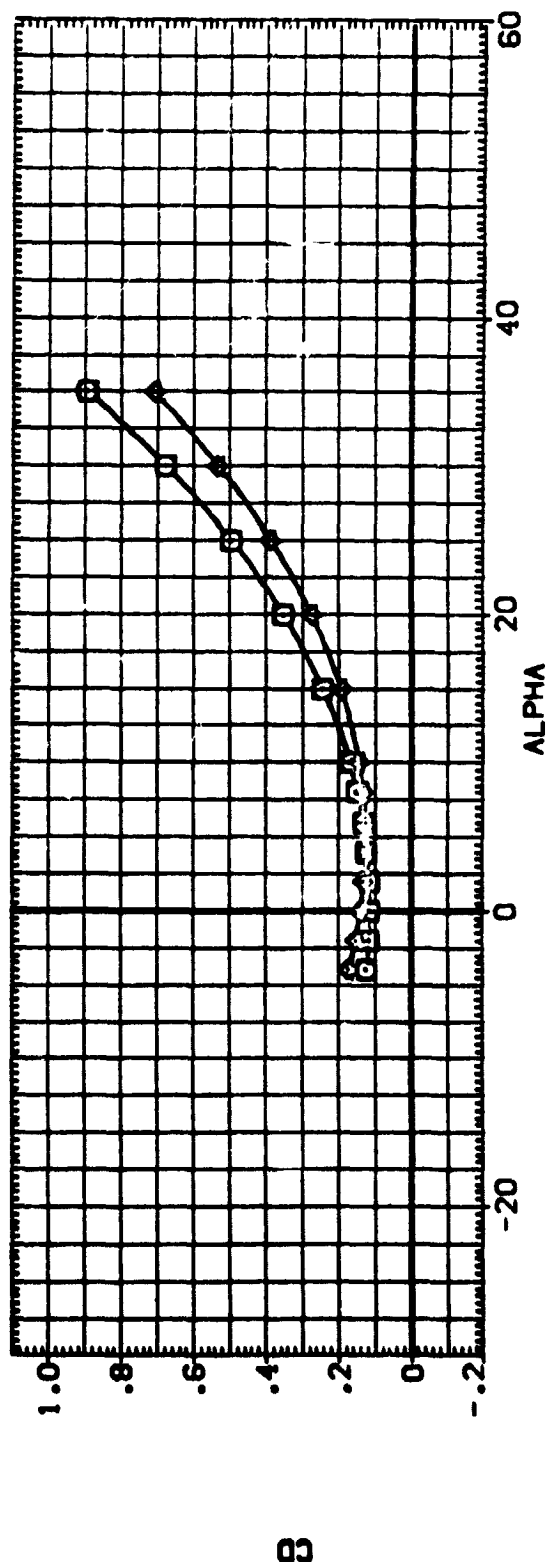
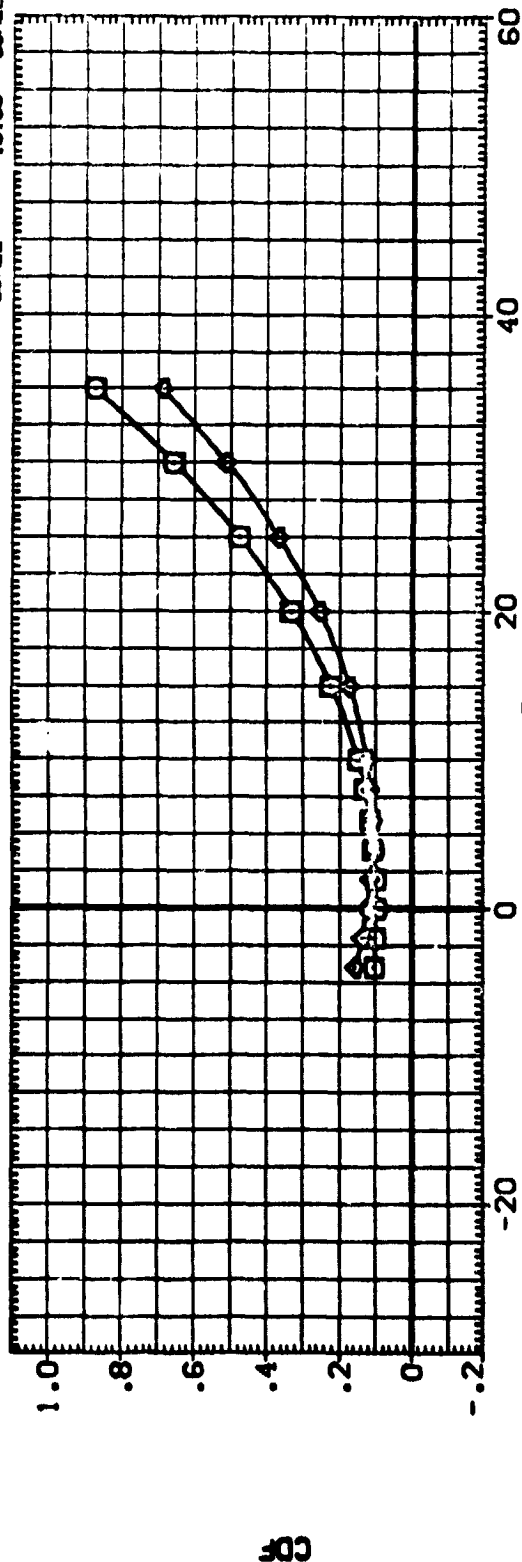


FIG. 6 STING AND NOZZLE TARES

(MACH = 2.50)



DATA SET SHEET	CONF IGURATION DESCRIPTION	BETA	BD FLAP	SPOORX	ELEVON	REFERENCE INFORMATION
(E02104)	GA-208 LARC UPVT 1057 140 A/B 0/0	.000	15.300	54.520	15.000	SREF 2650.0000 SQ.FT.
(E02110)	GA-208 LARC UPVT 1057 140 A/B 0/0	.000	15.300	54.520	15.000	LREF 1250.3000 INO-ES
(E02105)	GA-208 LARC UPVT 1057 140 A/B 0/0	.000	-11.700	54.520	-40.000	BREF 936.6800 INO-ES
(E02106)	GA-208 LARC UPVT 1057 140 A/B 0/0	.000	-11.700	54.520	-40.000	APREF 1075.7000 INO-ES
						YREF .0000 INO-ES
						ZREF 375.0000 INO-ES
						SCALE .0150

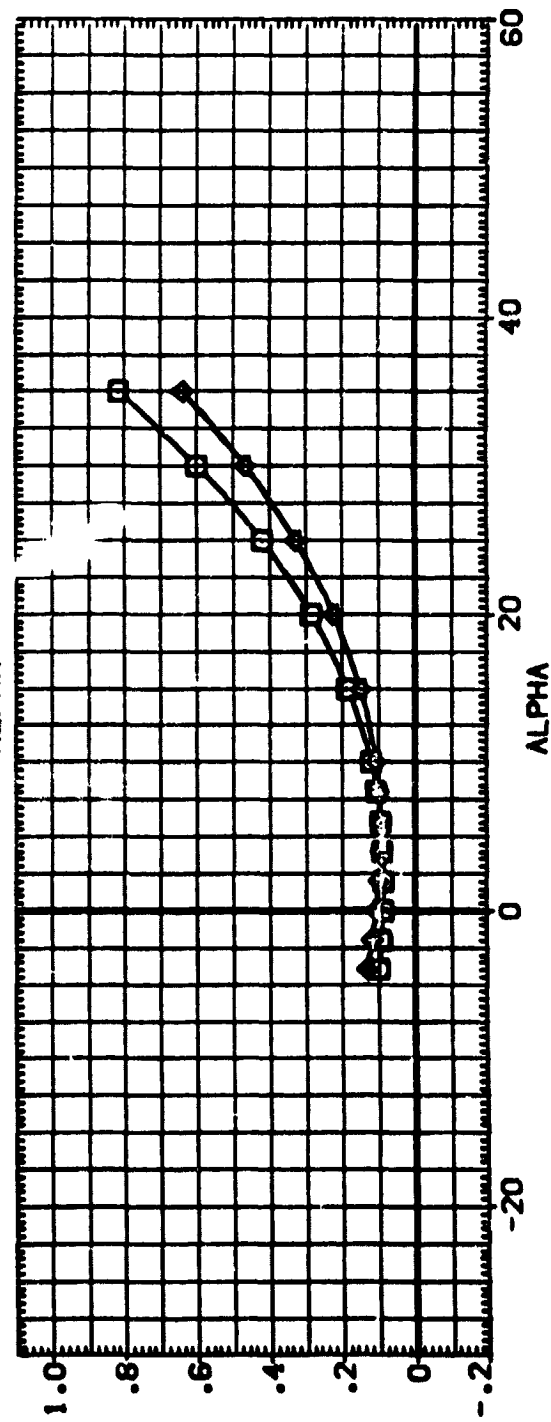
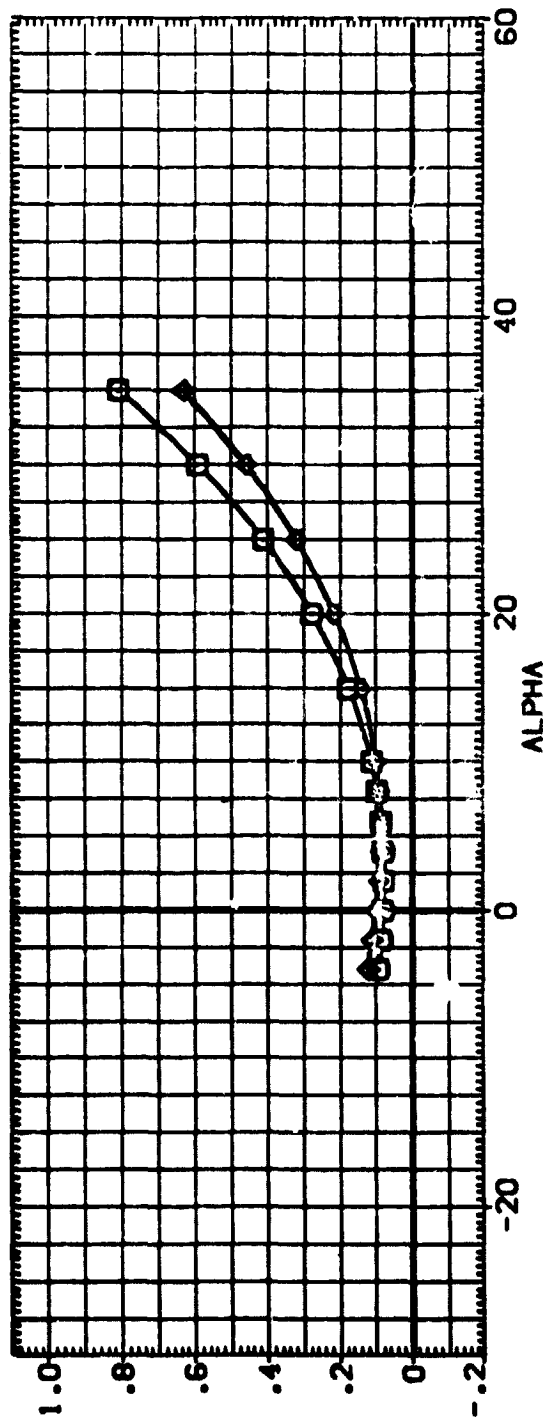


FIG. 6 STING AND NOZZLE TARES

(B)MACH = 3.95

DATA SET SWGL CONFIGURATION DESCRIPTION

DATA SET	SWGL	CONFIGURATION	DESCRIPTION
(E02104)	DA-208	LARC UPVT 1087 140 A/B 088	+DUPHY STING
(E02110)	DA-208	LARC UPVT 1087 140 A/B 088	+DUPHY STING
(E02105)	DA-208	LARC UPVT 1087 140 A/B 088	+DUPHY STING
(E02106)	DA-208	LARC UPVT 1087 140 A/B 088	+DUPHY STING

BETA

BETA	BOFLAP	SPODRK	ELEVON
.000	16.300	54.920	15.000
.000	16.300	54.920	15.000
.000	-11.700	54.920	-40.000
.000	-11.700	54.920	-40.000

REFERENCE INFORMATION

SRF	2690.0000	50.00
SRF	2690.0000 <td>50.00 </td>	50.00
SRF	1290.0000 <td>100.00 </td>	100.00
SRF	936.6800 <td>150.00 </td>	150.00
SRF	1076.7000 <td>200.00 </td>	200.00
SRF	375.0000 <td>250.00 </td>	250.00
SRF	375.0000 <td>300.00 </td>	300.00
SRF	375.0000 <td>350.00 </td>	350.00
SRF	375.0000 <td>400.00 </td>	400.00
SRF	375.0000 <td>450.00 </td>	450.00
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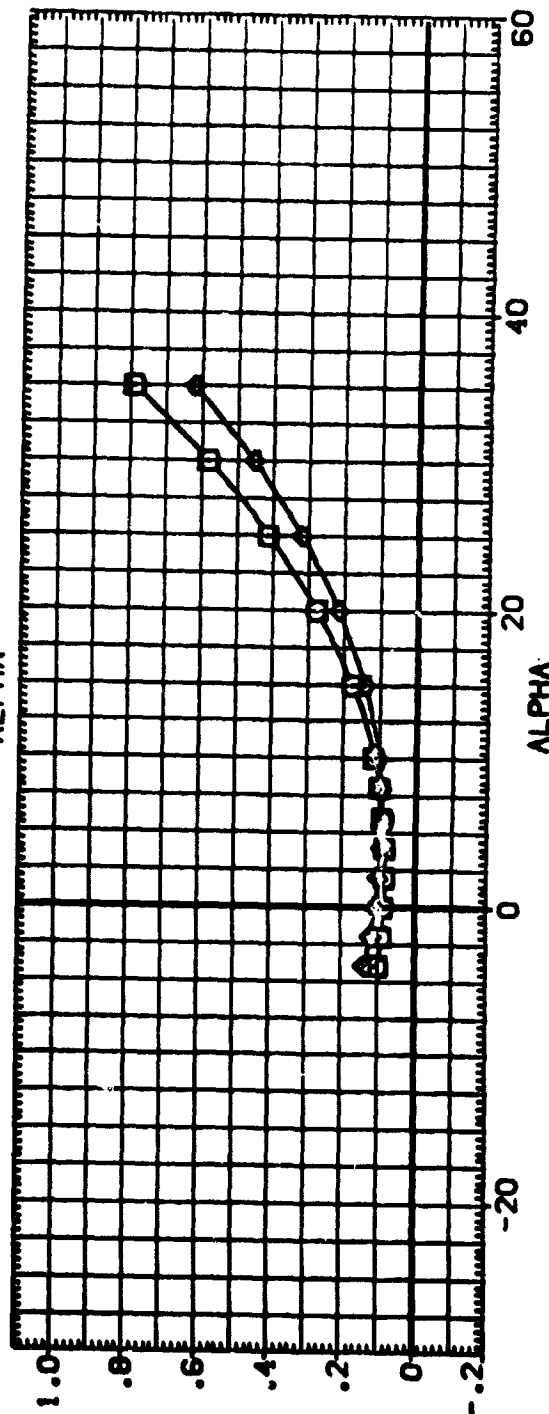
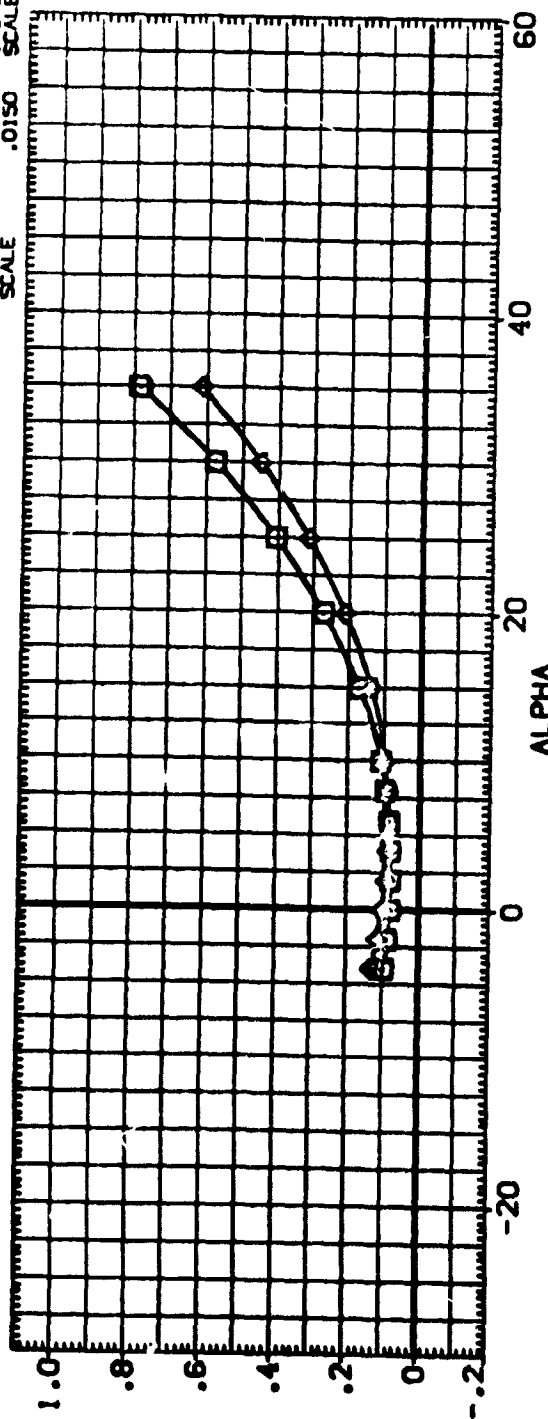


FIG. 6 STING AND NOZZLE TARES
(C)MACH = 4.63

DATA SET SPEED CONFIGURATION DESCRIPTION REFERENCE INFORMATION

DATA SET	SPEED	CONFIGURATION	DESCRIPTION	BETA	BOFLAP	SPOROK	ELEVON	SREF	2690.0000	50.FT.
(E02104)	Q	0A-208	LAC UVT 1087 140 A/B 088	.000	16.300	54.920	15.000	LREF	1290.3000	INOES
(E02110)	X	0A-208	LAC UVT 1087 140 A/B 088	.000	16.300	54.920	15.000	BREF	935.6000	INOES
(E02105)	X	0A-208	LAC UVT 1087 140 A/B 088	.000	-11.700	54.920	-40.000	XPRP	1076.7000	INOES
(E02106)	X	0A-208	LAC UVT 1087 140 A/B 088	.000	-11.700	54.920	-40.000	YPRP	.0000	INOES
								ZPRP	375.0000	INOES
								SCALE	.0150	SCALE

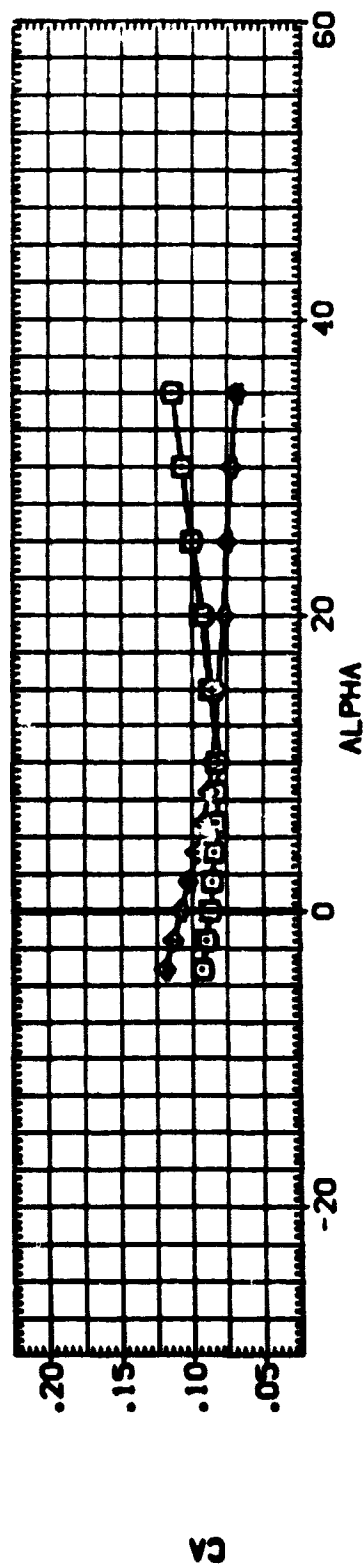
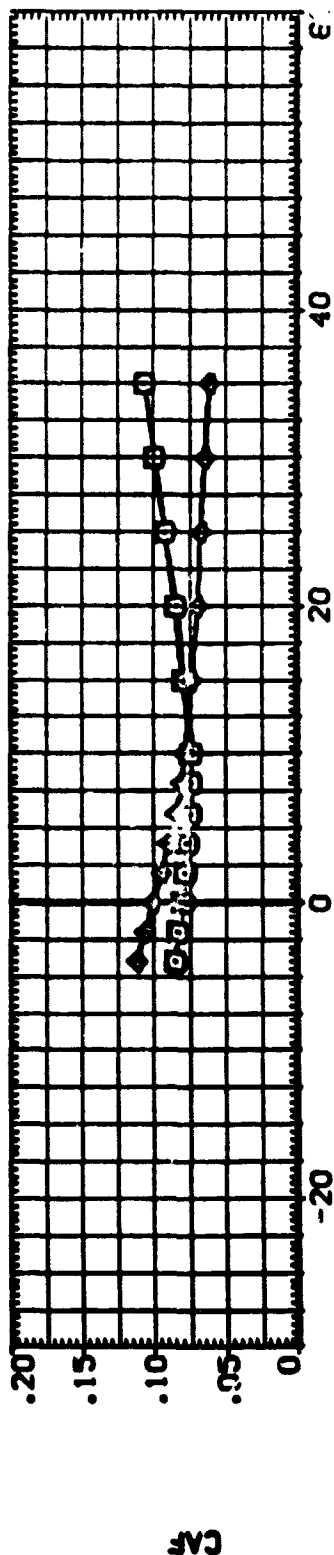
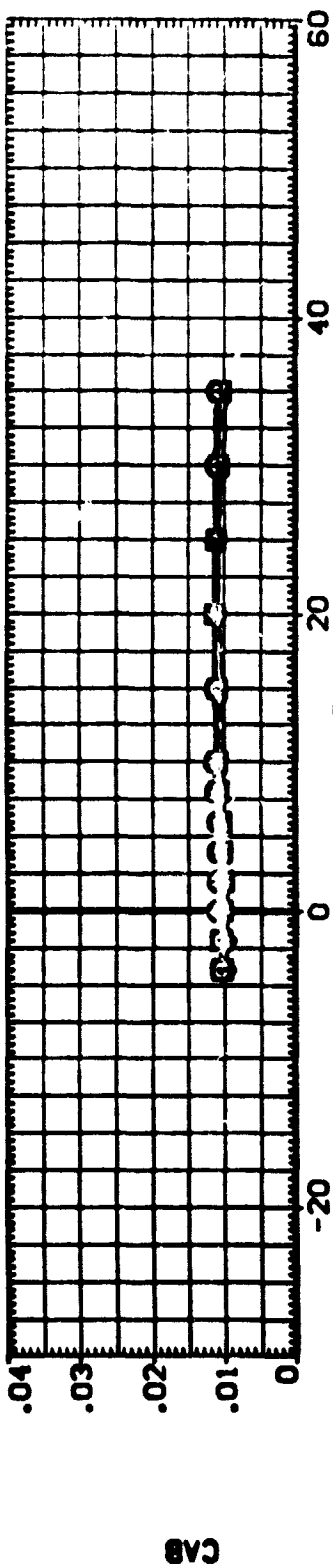


FIG. 6 STING AND NOZZLE TARES
(B)MACH = 3.95

DATA SET	ORIG.	CONF	ISOLATION	DESCRIPTION	BETA	BDFLAP	SPDRK	ELEVON	REFERENCE INFORMATION
(E02104)	Q	0A-208	LARC	UPVT 1087 140 A/S 088	.000	16.300	54.520	15.000	REF 2630.0000 SQ.FT.
(E02110)	Q	0A-208	LARC	UPVT 1087 140 A/S 088	.000	16.300	54.520	15.000	LREF 1290.3000 INCHES
(E02105)	X	0A-208	LARC	UPVT 1087 140 A/S 088	.000	16.300	54.520	15.000	BREF 936.6800 INCHES
(E02106)	X	0A-208	LARC	UPVT 1087 140 A/S 088	.000	16.300	54.520	15.000	YREF 1076.7000 INCHES
									ZREF .0000 INCHES
									SCALE .0150 SCALE

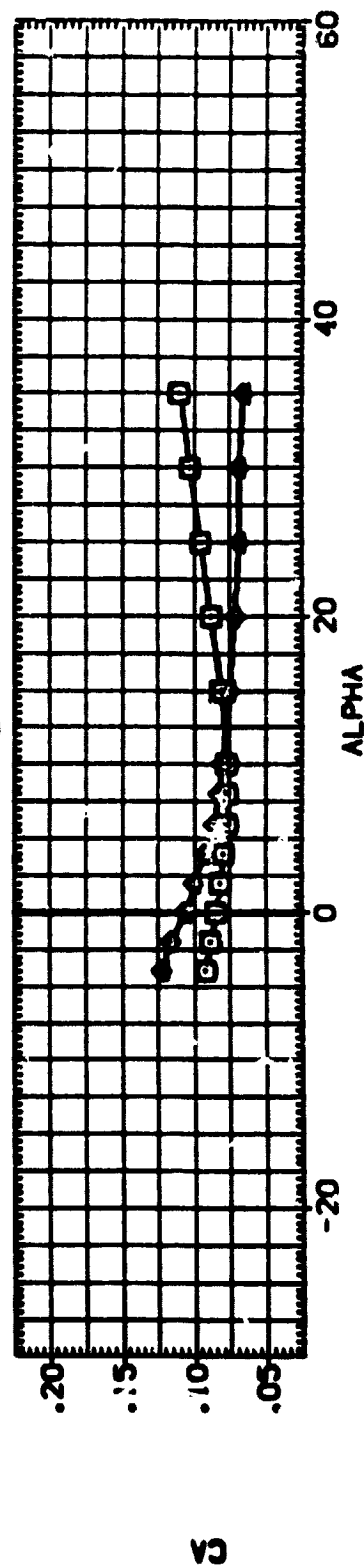
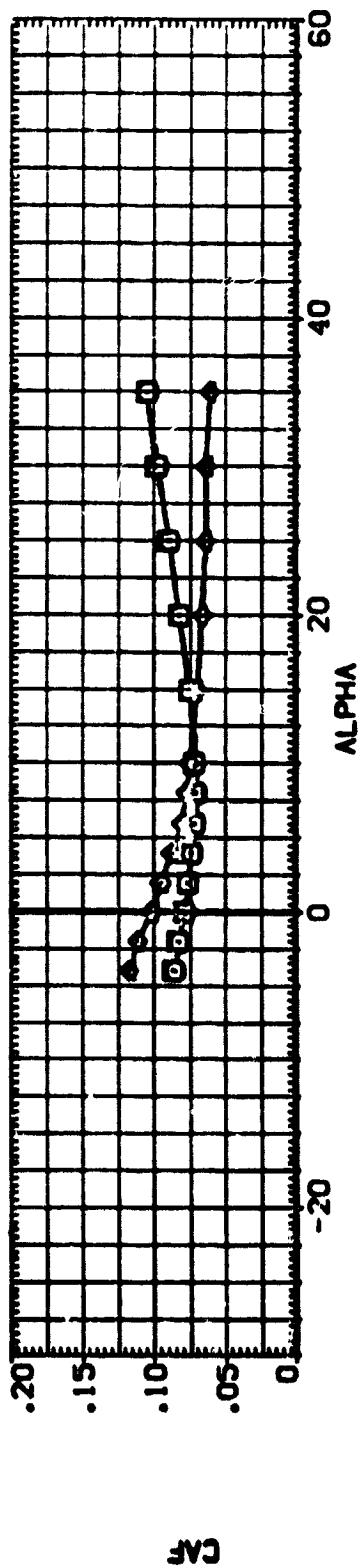
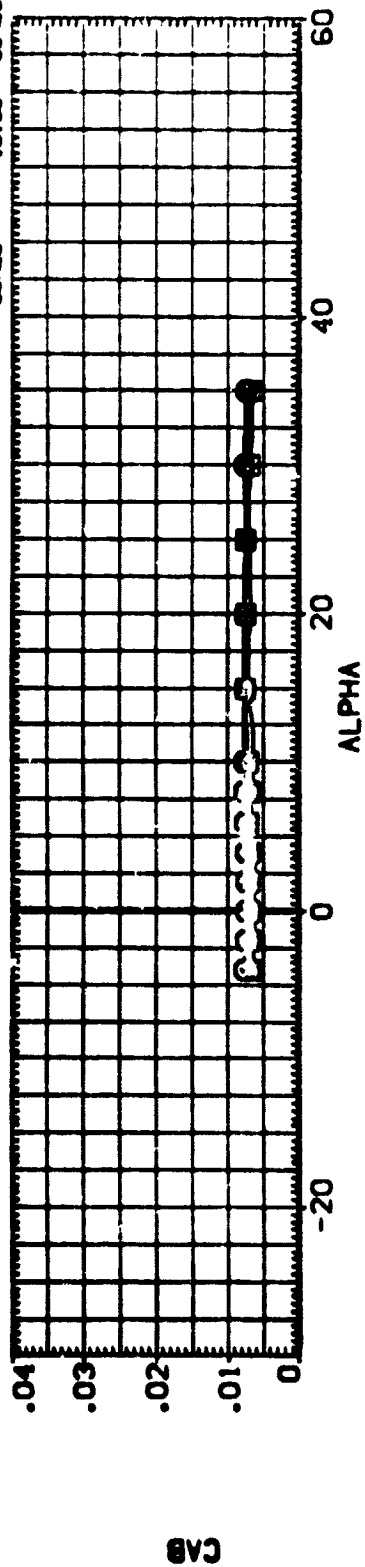


FIG. 6 STING AND NOZZLE TARES
(C)MACH = 4.63

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BOFLAP	SPOBRK	ELEVON	REFERENCE INFORMATION
{E02104}	DA-208 LARC UPVT 1097 140 A/B 098	.000	16.300	54.920	15.000	SREF 2690.0000 SQ.FT.
{E02110}	DA-208 LARC UPVT 1097 140 A/B 098	.000	16.00	54.920	15.000	LREF 1290.3000 INCHES
{E02105}	DA-208 LARC UPVT 1097 140 A/B 098	.000	-11.00	54.920	-40.000	BREF 936.6800 INCHES
{E02106}	DA-208 LARC UPVT 1097 140 A/B 098	.000	-11.00	54.920	-40.000	XREF 1076.7000 INCHES
						YREF .0000 INCHES
						ZREF .0000 INCHES
						SCALE .0150 SCALE

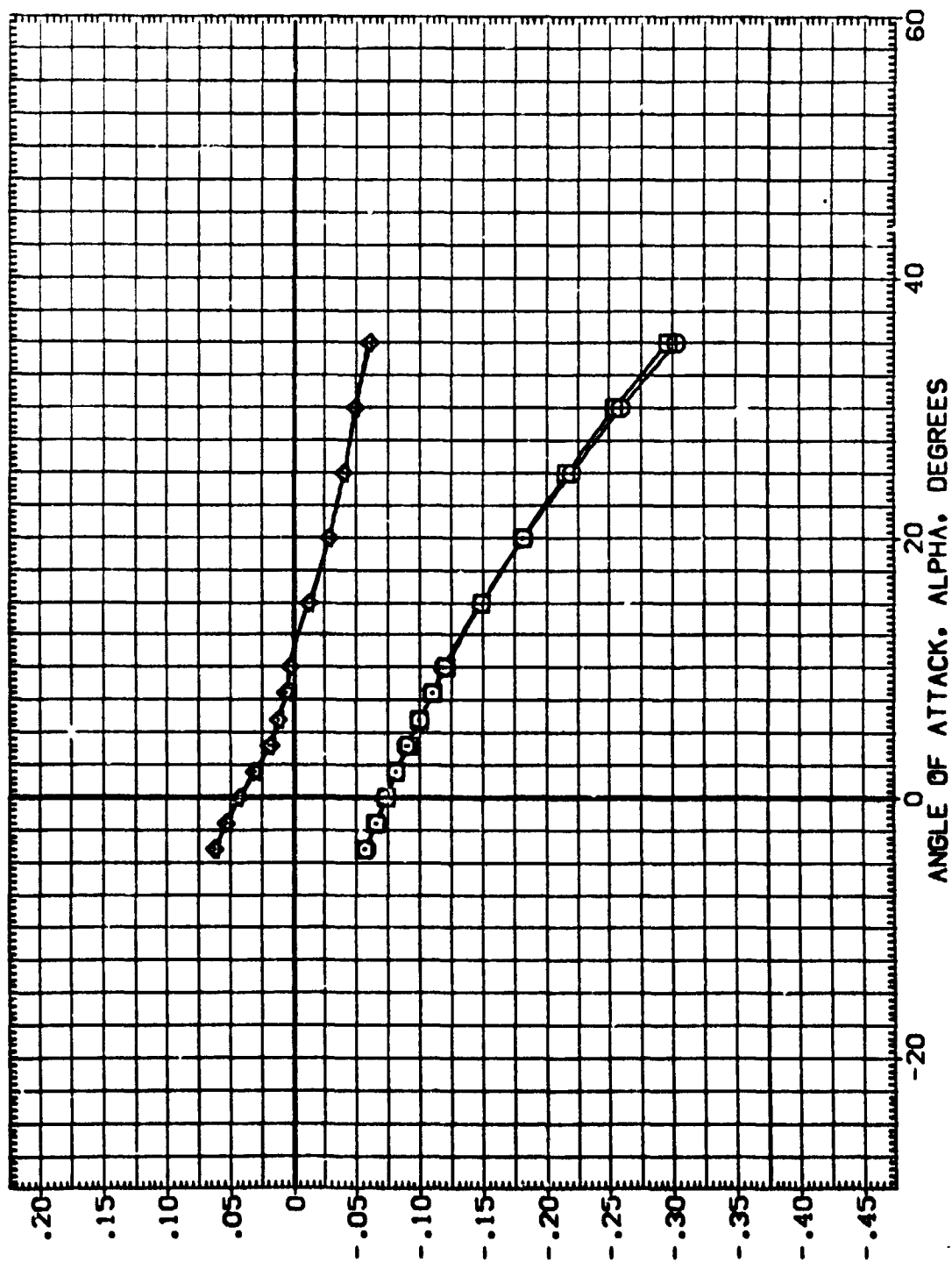


FIG. 6 STING AND NOZZLE TARES

(A)MACH = 2.50



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BD FLAP	SP05BK	ELEVON	REFERENCE INFORMATION
(E02104)	GA-208 LARC UPVT 1097 140 A/B 058 +DUPPY STING	.000	16.300	54.920	15.000	SREF 2690.0000 50. FT.
(E02110)	GA-208 LARC UPVT 1097 140 A/B 058 +DUPPY STING	.000	16.300	54.920	15.000	LREF 1290.3000 INCHES
(E02105)	GA-208 LARC UPVT 1097 140 A/B 058 +DUPPY STING	.000	-11.700	54.920	-40.000	BREF 506.8600 INCHES
(E02106)	GA-208 LARC UPVT 1097 140 A/B 058 +DUPPY STING	.000	-11.700	54.920	-40.000	XPRP 1076.7000 INCHES
						YPRP .0000 INCHES
						ZPRP 375.0000 INCHES
						SCALE .0150

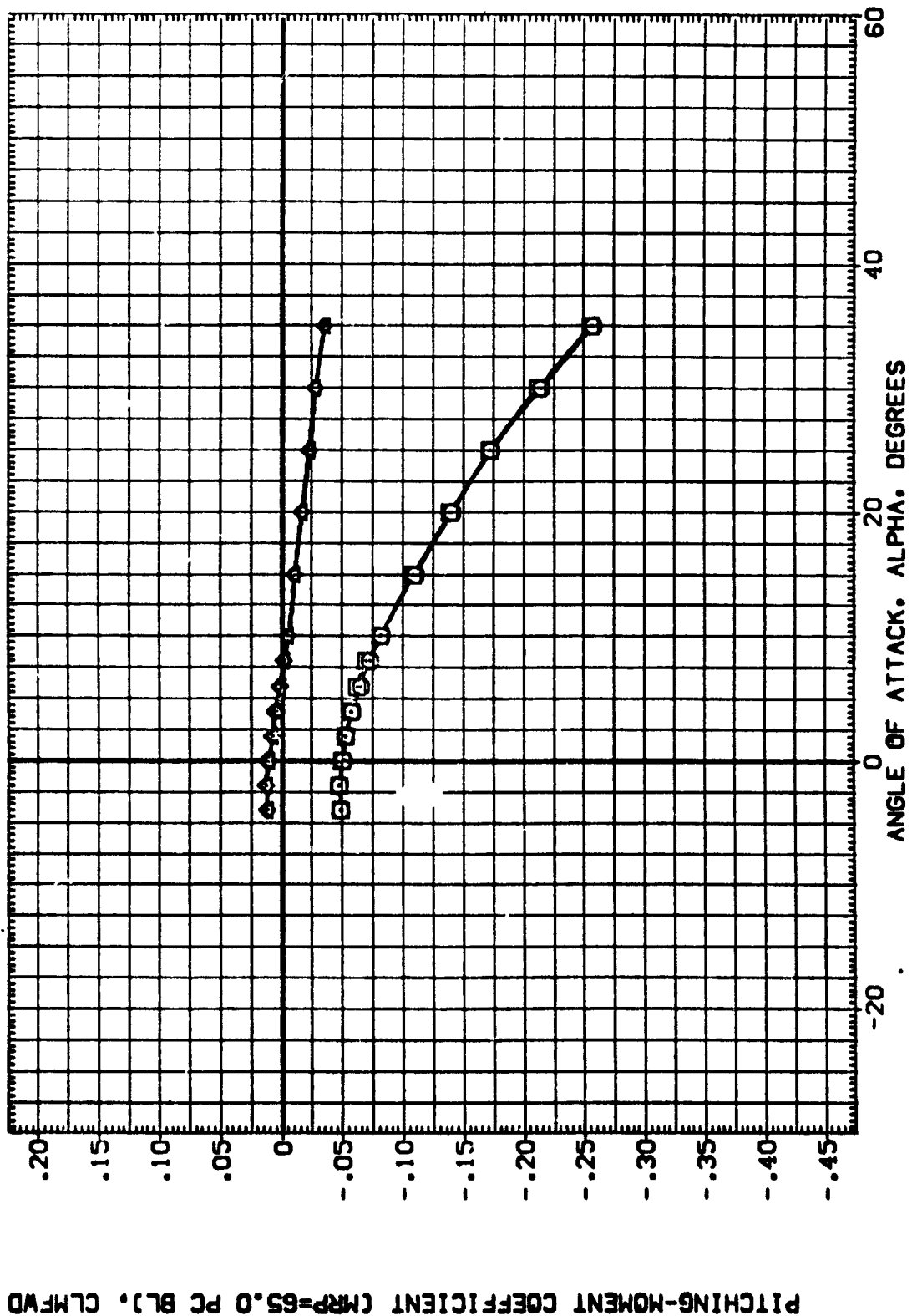


FIG. 6 STING AND NOZZLE TARES

(B)MACH = 3.95

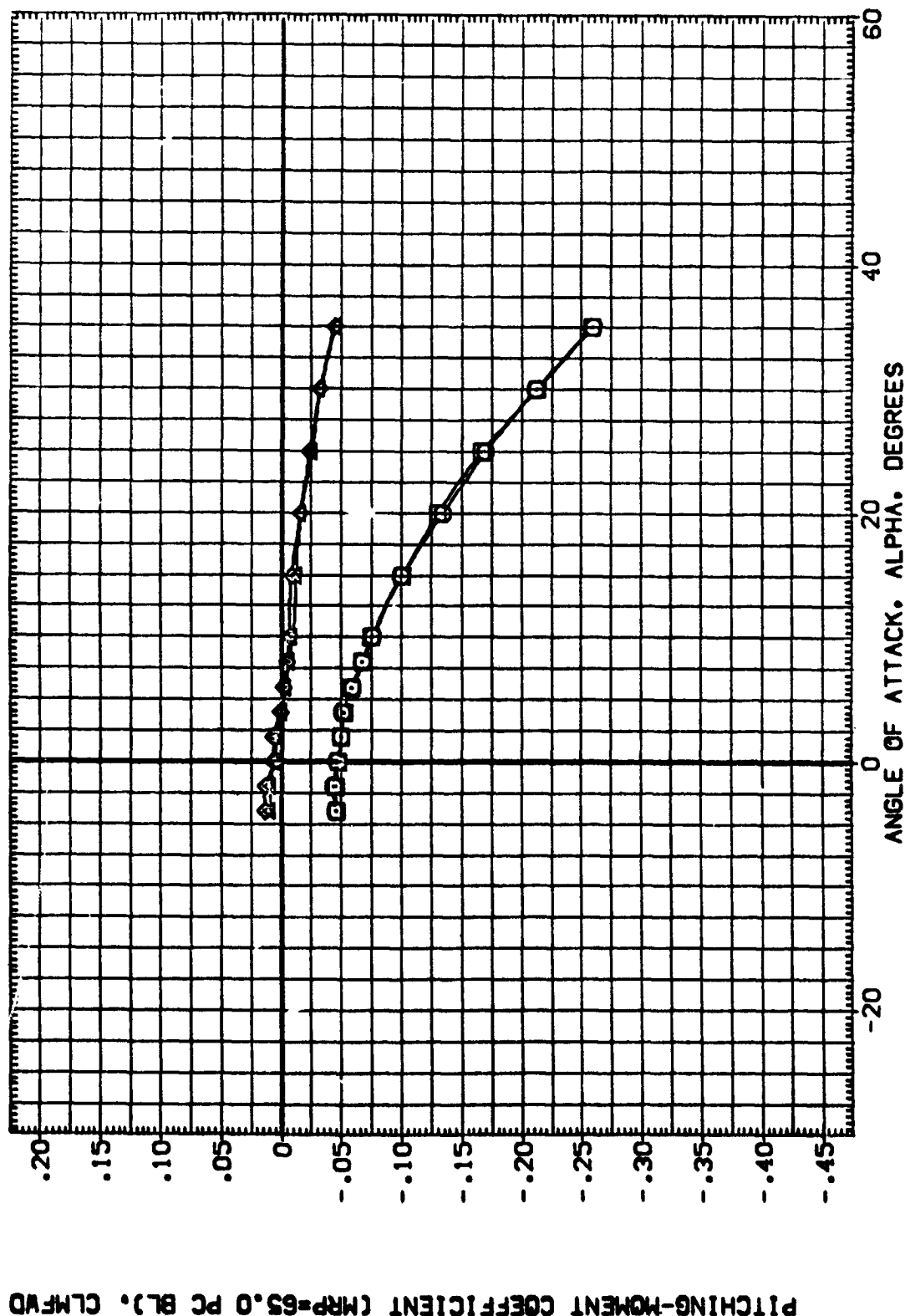


FIG. 6 STING AND NOZZLE TARES

(C)MACH = 4.63

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BOFLAP	SPOBRK	ELEVON	REFERENCE INFORMATION
{E02104}	SA-208 LARC UPVT 1057 140 A/B 078	.000	16.300	SA.520	15.000	SREF 2690.0000 SO.FT.
{E02110}	SA-208 LARC UPVT 1057 140 A/B 078	.000	16.300	SA.520	15.000	LREF 1290.3000 INCHES
{E02105}	SA-208 LARC UPVT 1057 140 A/B 078	.000	-11.700	SA.520	-40.000	BREF 936.6800 INCHES
{E02106}	SA-208 LARC UPVT 1057 140 A/B 078	.000	-11.700	SA.520	-40.000	XMRP 1076.7000 INCHES
						YMRP .0000 INCHES
						ZMRP .0000 INCHES
						SCALE .0150

DATA SET	SWING	CONFIGURATION DESCRIPTION	BETA	BD FLAP	SPORK	ELEVON	REFERENCE INFORMATION
{E22104}	□	BA-208 LARC UPVT 1057 140 A/B 058 +CLIPPY STING	.000	15.300	54.520	15.000	SREF 2690.0000 SQ.FT.
{E22105}	□	BA-208 LARC UPVT 1057 140 A/B 058 +CLIPPY STING	.000	15.300	54.520	15.000	LREF 1290.3000 INCHES
{E22106}	□	BA-208 LARC UPVT 1057 140 A/B 058 +CLIPPY STING	.000	-11.700	54.520	-40.000	BREF 936.6800 INCHES
							XREF 1076.7000 INCHES
							YREF .0000 INCHES
							ZREF 375.0000 INCHES
							SCALE .0150

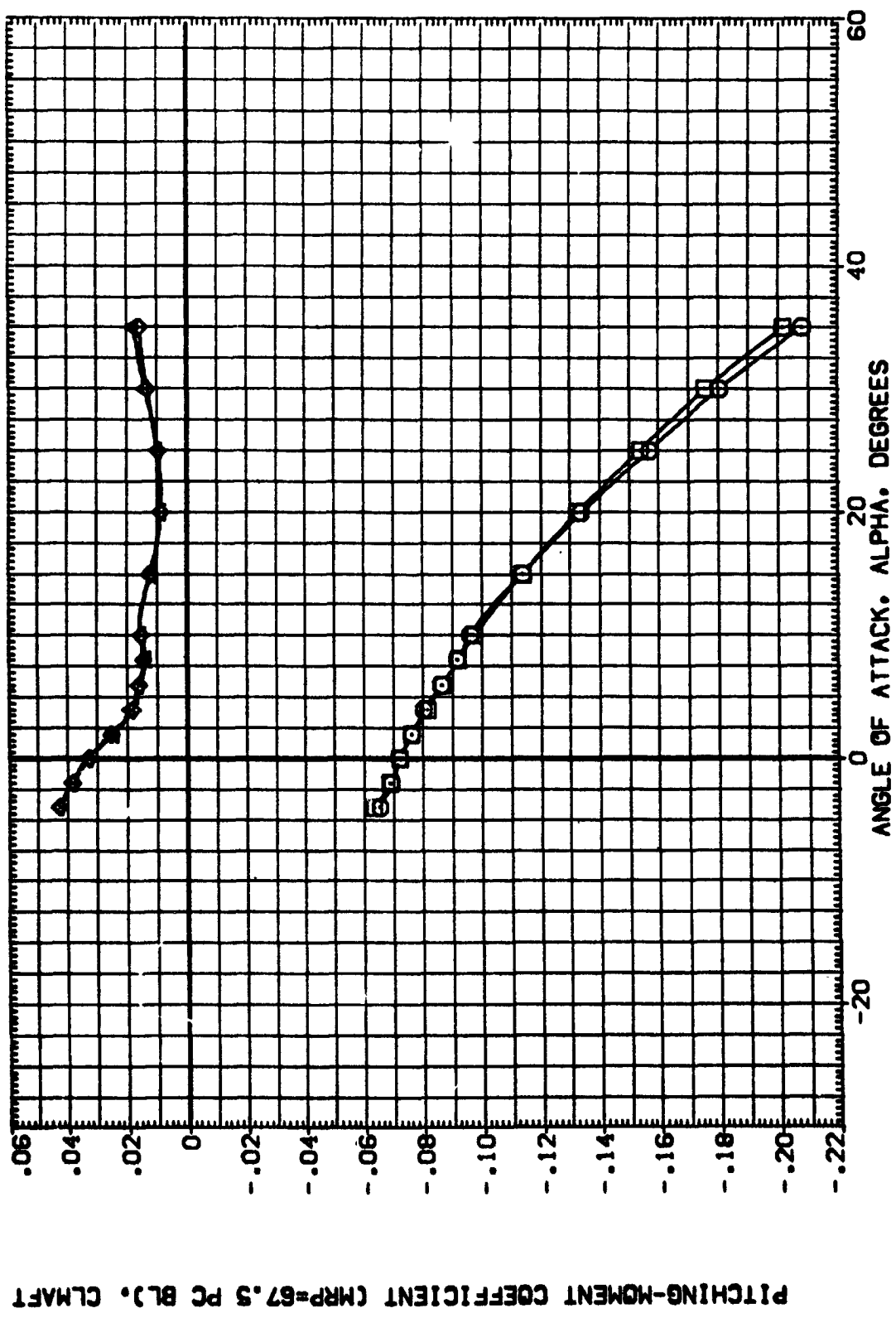


FIG. 6 STING AND NOZZLE TARES
(MACH = 2.50)

DATA SET SYMBOL CONFIGURATION DESCRIPTION BETA BOFLAP SPDRBK ELEVON REFERENCE INFORMATION SQ.FT. INCHES

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BOFLAP	SPDRBK	ELEVON	REFERENCE INFORMATION	SQ.FT.	INCHES
(E02104)	DA-208 LARC UPVT 1097 140 A/B 098 +DJMY STING	.000	16.300	54.520	15.000	SREF	2650.0000	1250.3000
(E02110)	DA-208 LARC UPVT 1097 140 A/B 098 +DJMY STING	.000	16.300	54.520	15.000	LREF	1250.3000	936.6000
(E02105)	DA-208 LARC UPVT 1097 140 A/B 098 +DJMY STING	.000	-11.700	54.520	-40.000	BREF	936.6000	1076.7000
(E02106)	DA-208 LARC UPVT 1097 140 A/B 098	.000	-11.700	54.520	-40.000	XPRP	1076.7000	375.0000
						YPRP	375.0000	.0150
						ZPRP		
						SCALE		

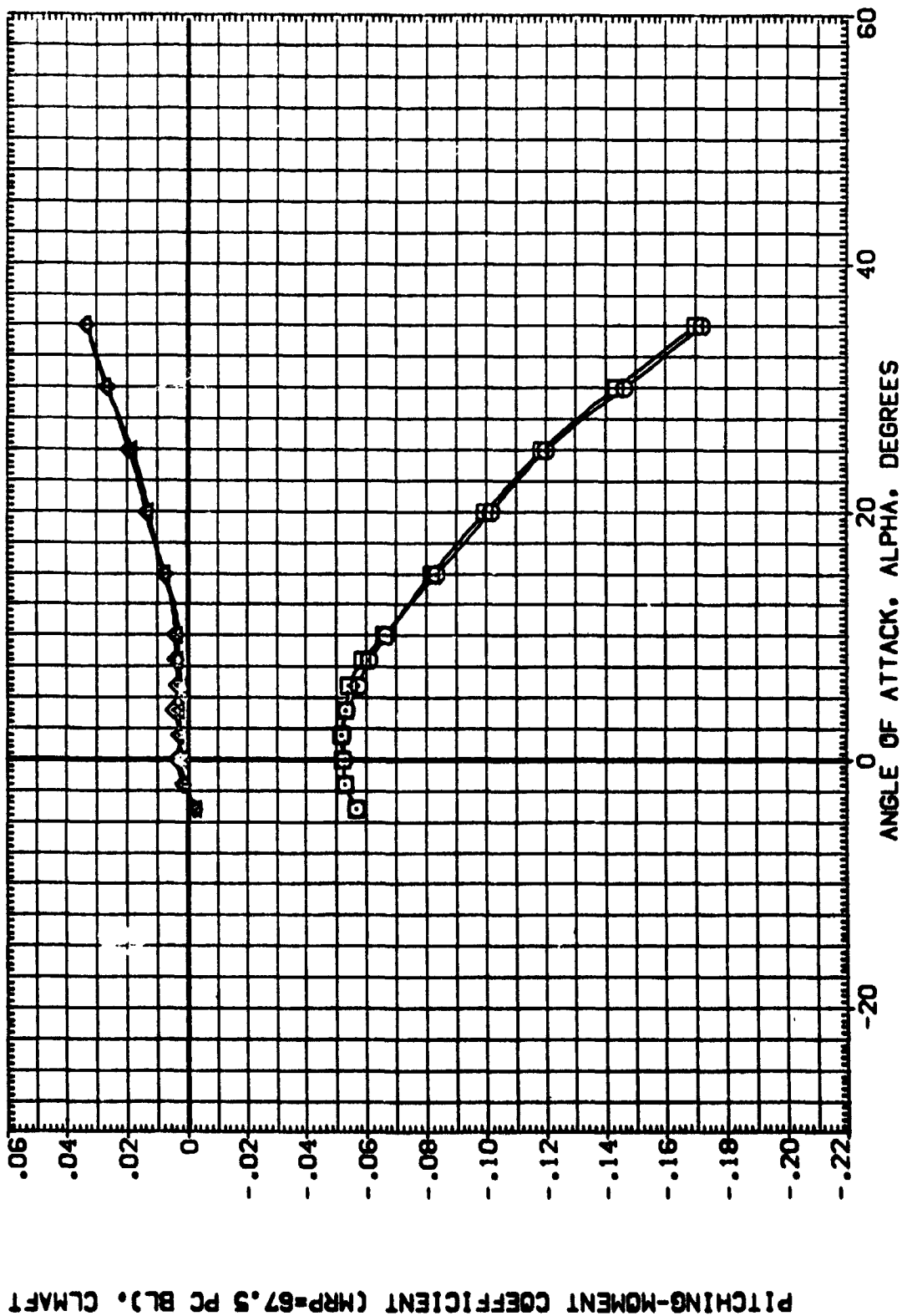


FIG. 6 STING AND NOZZLE TARES

(B)MACH = 3.95

DATA SET SPEED CONFIGURATION DESCRIPTION REFERENCE INFORMATION

DATA SET	SPEED	CONFIGURATION	DESCRIPTION	BETA	BD FLAP	SPOBRK	ELEVON	REF	INCHES	SCALE
{E02104}	100	BA-208	LARC UPVT 1087 140 A/B 0/8	.000	16.300	54.920	15.000	SREF	2690.0000	50 FT.
{E02110}	100	BA-208	LARC UPVT 1087 140 A/B 0/8	.000	16.300	54.920	15.000	LREF	1290.3000	INCHES
{E02105}	100	BA-208	LARC UPVT 1087 140 A/B 0/8	.000	-11.700	54.920	-40.000	SREF	936.6000	INCHES
{E02106}	100	BA-208	LARC UPVT 1087 140 A/B 0/8	.000	-11.700	54.920	-40.000	XREF	1076.7000	INCHES
								YREF	375.0000	INCHES
								ZREF	375.0000	INCHES
								SCALE	.0150	SCALE

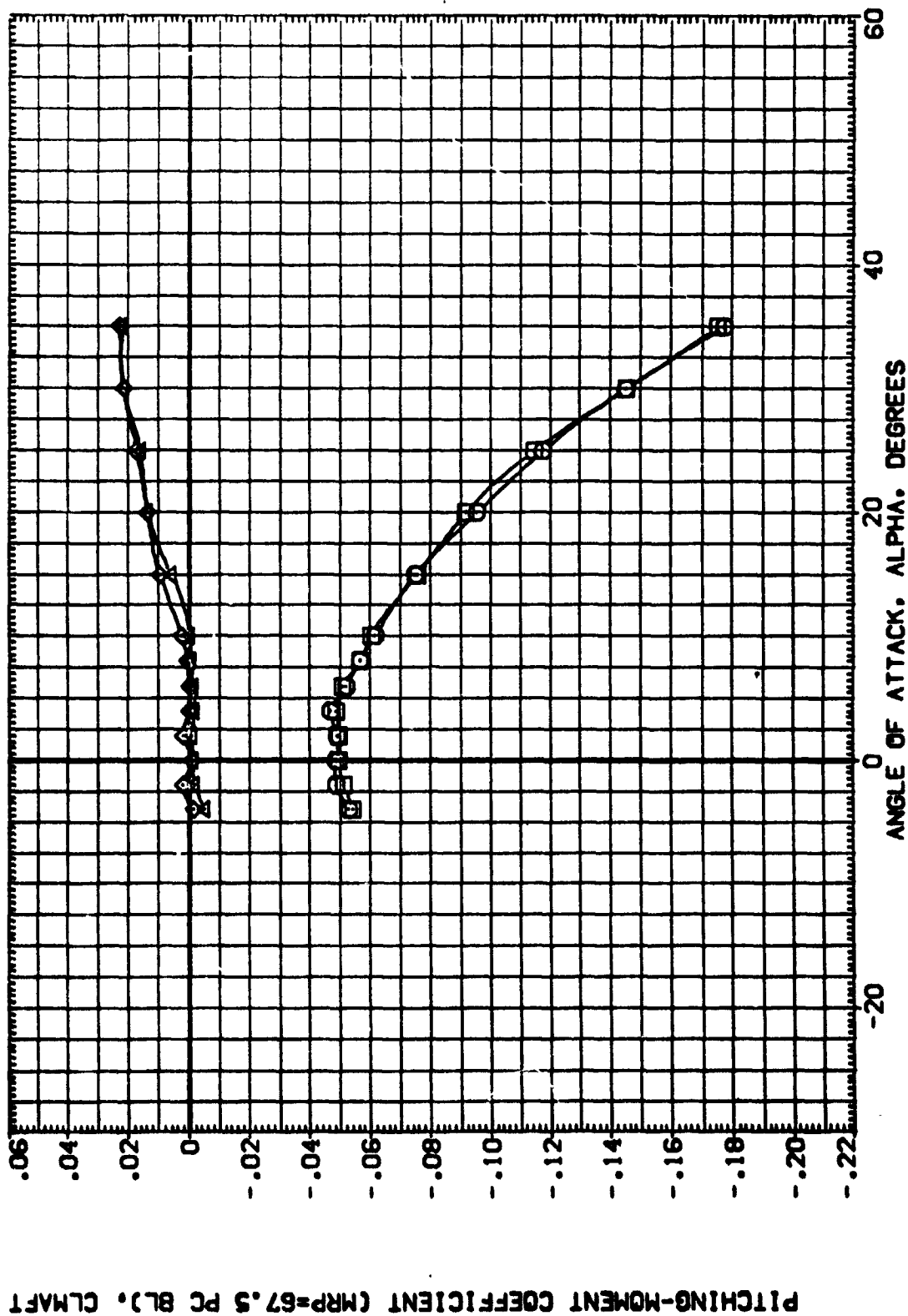
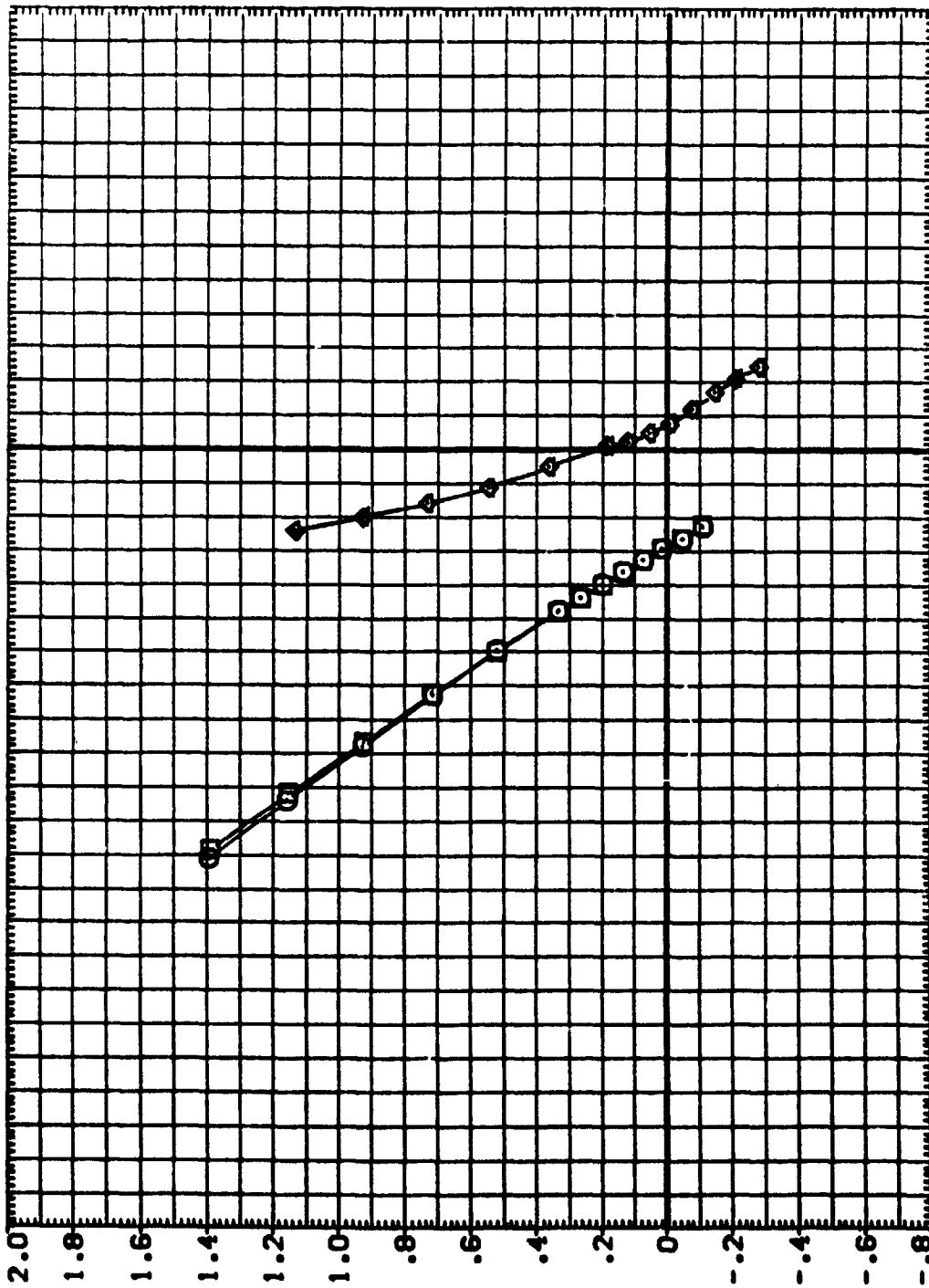


FIG. 6 STING AND NOZZLE TARES

(C)MACH = 4.63

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BD FLAP	SPORWK	ELEVON	REFERENCE INFORMATION
(E02104)	0A-208 LARC UPVT 1057 140 A/B 578	.000	16.300	54.920	15.000	SREF 2690.0000 50.0 FT.
(E02110)	0A-208 LARC UPVT 1057 140 A/B 578	.000	16.300	54.920	15.000	LREF 1290.3000 INCHES
(E02105)	0A-208 LARC UPVT 1057 140 A/B 578	.000	-11.700	54.920	-40.000	BREF 936.6800 INCHES
(E02106)	0A-208 LARC UPVT 1057 140 A/B 578	.000	-11.700	54.920	-40.000	YMRP 1076.7000 INCHES
						ZMRP .0000 INCHES
						SCALE 375.0000 INCHES
						SCALE .0150

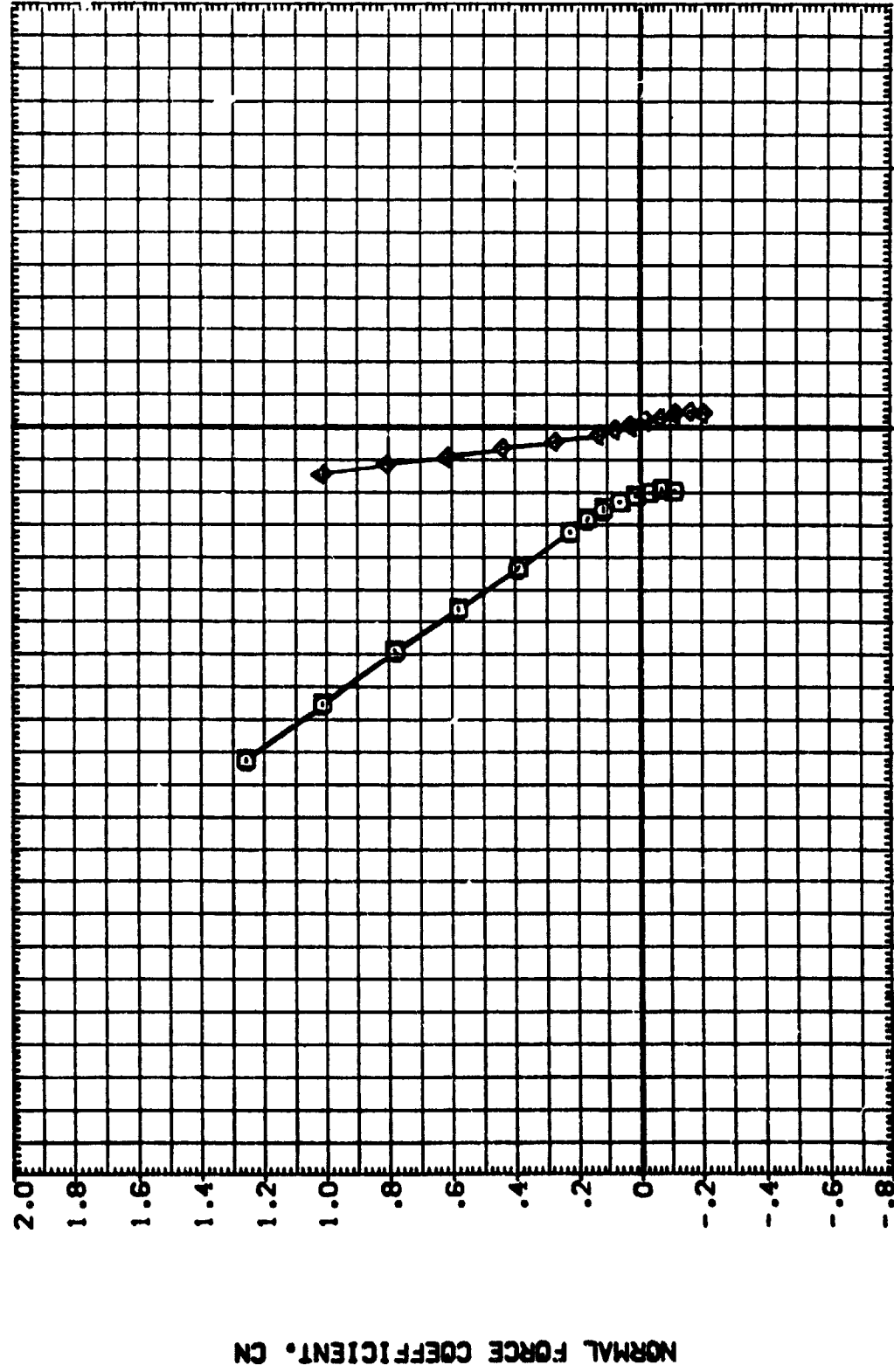


PITCHING-MOMENT COEFFICIENT (MRP=65.0 PC BL). CLMFWD

FIG. 6 STING AND NOZZLE TARES

(MACH = 2.50)

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BOFLAP	SPOBRK	ELEVON	REFERENCE INFORMATION
{E02104}	DA-208 LARC UPVT 1087 140 A/B ORB	.000	16.300	54.920	15.000	SREF 2690.0000 SQ.FT.
{E02110}	DA-208 LARC UPVT 1087 140 A/B ORB	.000	16.300	54.920	15.000	LREF 1290.3000 INCHES
{E02105}	DA-208 LARC UPVT 1087 140 A/B ORB	.000	-11.700	54.920	-40.000	BREF 936.6800 INCHES
{E02106}	DA-208 LARC UPVT 1087 140 A/B ORB	.000	-11.700	54.920	-40.000	XMRP 1076.7000 INCHES
						YMRP .0000 INCHES
						ZMRP 375.0000 INCHES
						SCALE .0150



PITCHING-MOMENT COEFFICIENT (MRP=65.0 PC BL). CLMFWD

FIG. 6 STING AND NOZZLE TARES

(B)MACH = 3.95

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BOFLAP	SPUSRK	ELEVON	REFERENCE INFORMATION
(E02104)	DA-208 LARC UPVT 1057 140 A/B 058 +DUMMY STING	.000	16.300	54.920	15.000	SREF 2690.0000 SQ.FT.
(E02110)	DA-208 LARC UPVT 1057 140 A/B 058	.000	16.300	54.920	15.000	LREF 1290.3000 INCHES
(E02105)	DA-208 LARC UPVT 1057 140 A/B 058 +DUMMY STING	.000	-11.700	54.920	-40.000	BREF 936.8300 INCHES
(E02106)	DA-208 LARC UPVT 1057 140 A/B 058	.000	-11.700	54.920	-40.000	XREF 1076.7000 INCHES
						YREF 0.0000 INCHES
						ZREF 375.0000 INCHES
						SCALE .0150

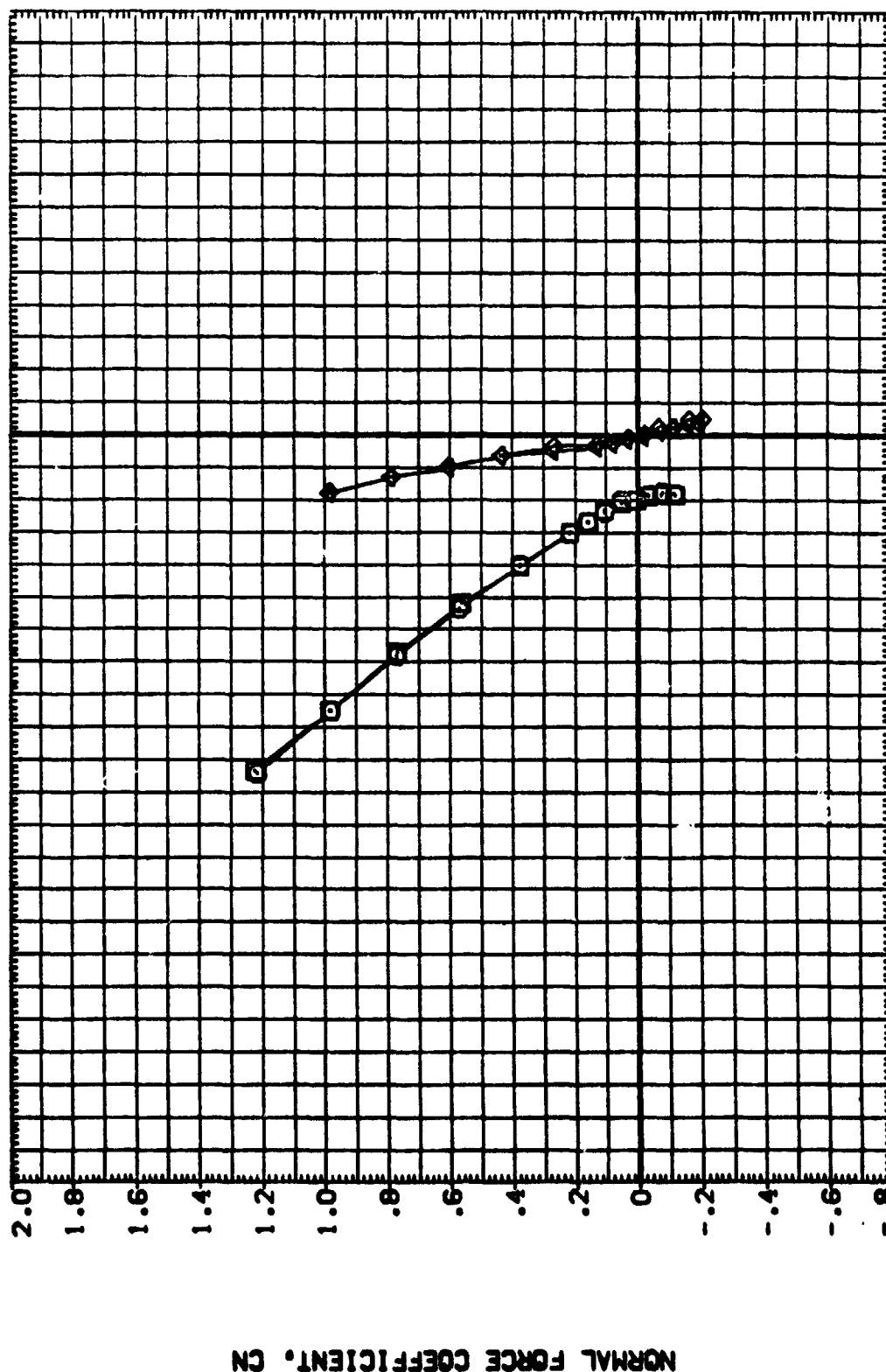


FIG. 6 STING AND NOZZLE TARES
(C)MACH = 4.63

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BD FLAP	SPOTBNK	ELEVON	REFERENCE INFORMATION
(E02104)	BA-208 LARC UPVT 1057 140 A/B 058	.000	15.300	54.520	15.000	SREF 2690.0000 SO.FT.
(E02105)	BA-208 LARC UPVT 1057 140 A/B 058	.000	15.300	54.520	15.000	LREF 1290.3000 INCHES
(E02106)	BA-208 LARC UPVT 1057 140 A/B 058	.000	15.300	54.520	15.000	BREF 535.6000 INCHES
(E02107)	BA-208 LARC UPVT 1057 140 A/B 058	.000	15.300	54.520	15.000	XREF 1076.7000 INCHES
(E02108)	BA-208 LARC UPVT 1057 140 A/B 058	.000	15.300	54.520	15.000	YREF 375.0000 INCHES
(E02109)	BA-208 LARC UPVT 1057 140 A/B 058	.000	15.300	54.520	15.000	ZREF 375.0000 INCHES
(E02110)	BA-208 LARC UPVT 1057 140 A/B 058	.000	15.300	54.520	15.000	SCALE .0150

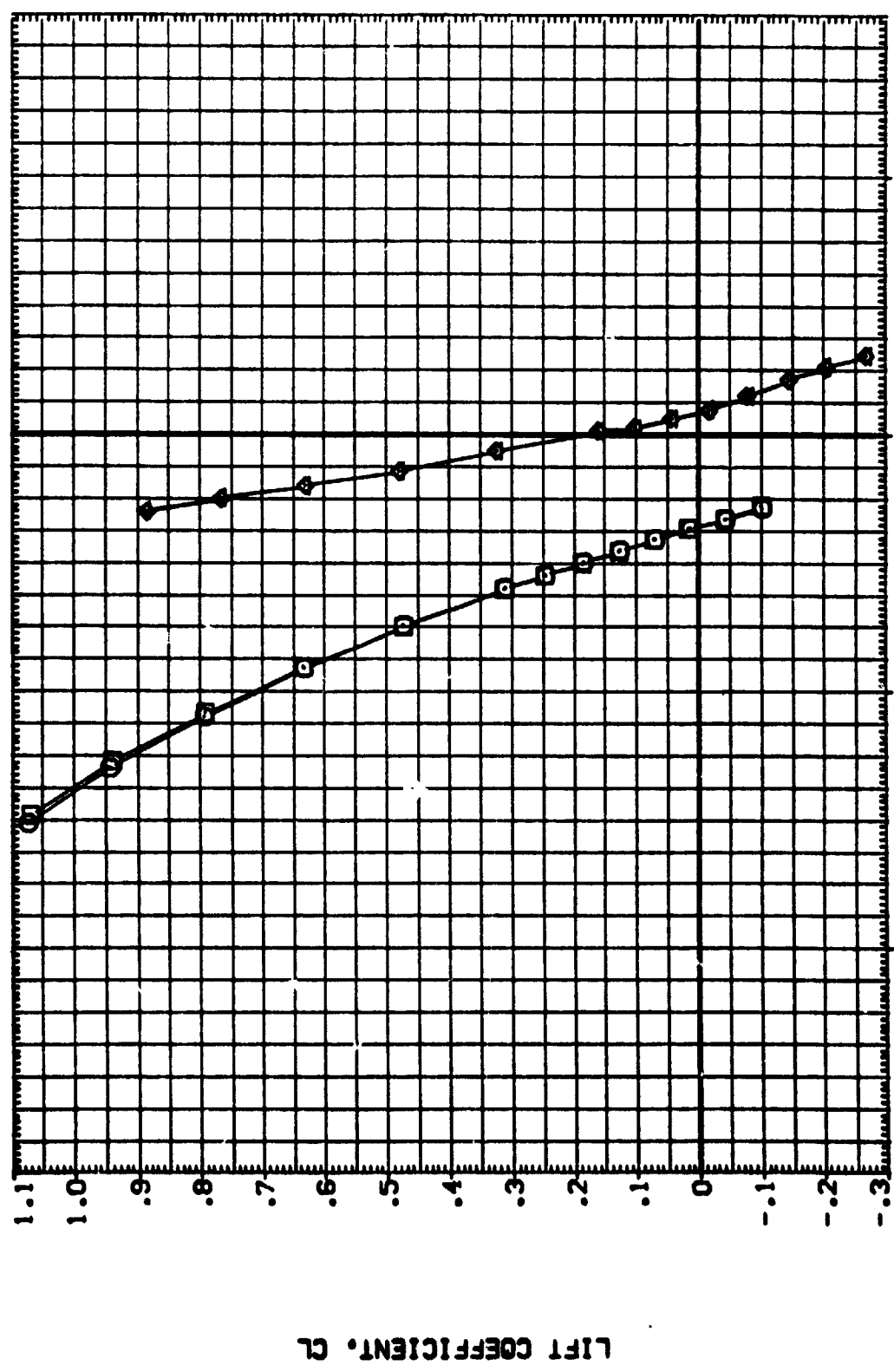


FIG. 6 STING AND NOZZLE TARES
(MACH = 2.50)

DATA SET	SPR	CONF	IS	DESCRIPTION	BETA	BDFLAP	SPDRK	ELEVON	REFERENCE INFORMATION
{E02101}	Q	DA-208	LARC	UPVT 1087 140 A/B 088	.000	16.300	54.520	15.000	SREF 2690.0000 SQ.FT.
{E02110}	Q	DA-208	LARC	UPVT 1087 140 A/B 088	.000	16.300	54.520	15.000	LREF 1290.3000 INO-ES
{E02105}	Q	DA-208	LARC	UPVT 1087 140 A/B 088	.000	-11.700	54.520	-40.000	BREF 936.6000 INO-ES
{E02106}	Q	DA-208	LARC	UPVT 1087 140 A/B 088	.000	-11.700	54.520	-40.000	YREF 1076.7000 INO-ES
									YREF 375.0000 INO-ES
									SCALE .0150

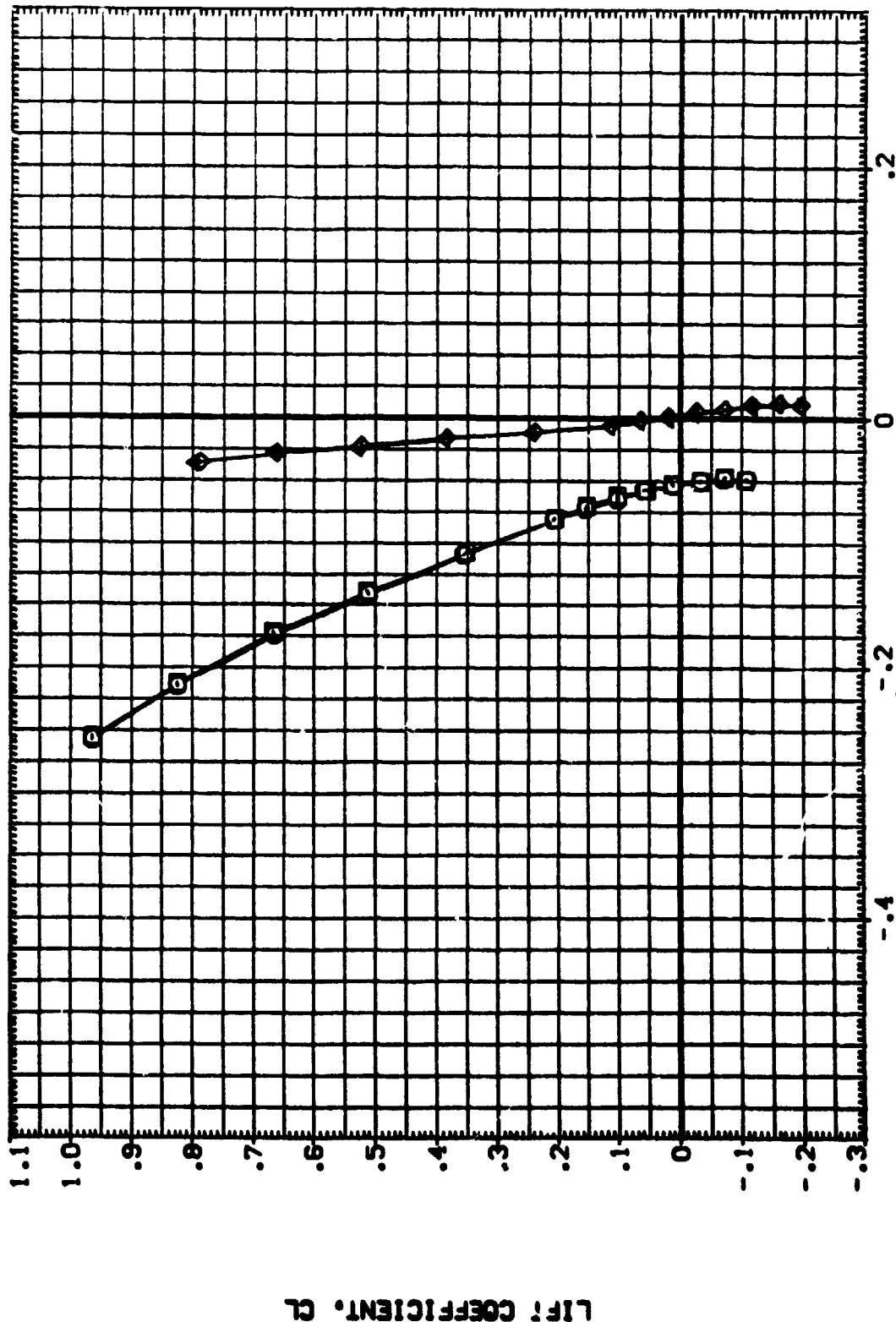


FIG. 6 STING AND NOZZLE TARES

(B)MACH = 3.95

DATA SET NAME	CONFIGURATION DESCRIPTION	BETA	REFLAP	SPDRK	ELEVON	REFERENCE INFORMATION
{EDZ104}	DA-208 LARC UPVT 1087 140 A/B ORB +0.000 STING	.000	16.300	54.820	15.000	SREF 2650.0000 SQ.FT.
{EDZ110}	DA-208 LARC UPVT 1087 140 A/B ORB +0.000 STING	.000	16.300	54.820	15.000	LREF 1750.3000 INCHES
{EDZ105}	DA-208 LARC UPVT 1087 140 A/B ORB +0.000 STING	.000	-11.700	54.820	-40.000	BREF 536.6800 INCHES
{EDZ106}	DA-208 LARC UPVT 1087 140 A/B ORB +0.000 STING	.000	-11.700	54.820	-40.000	XREF 1076.7000 INCHES
						YREF .0000 INCHES
						ZREF 375.0000 INCHES
						SCALE .0150

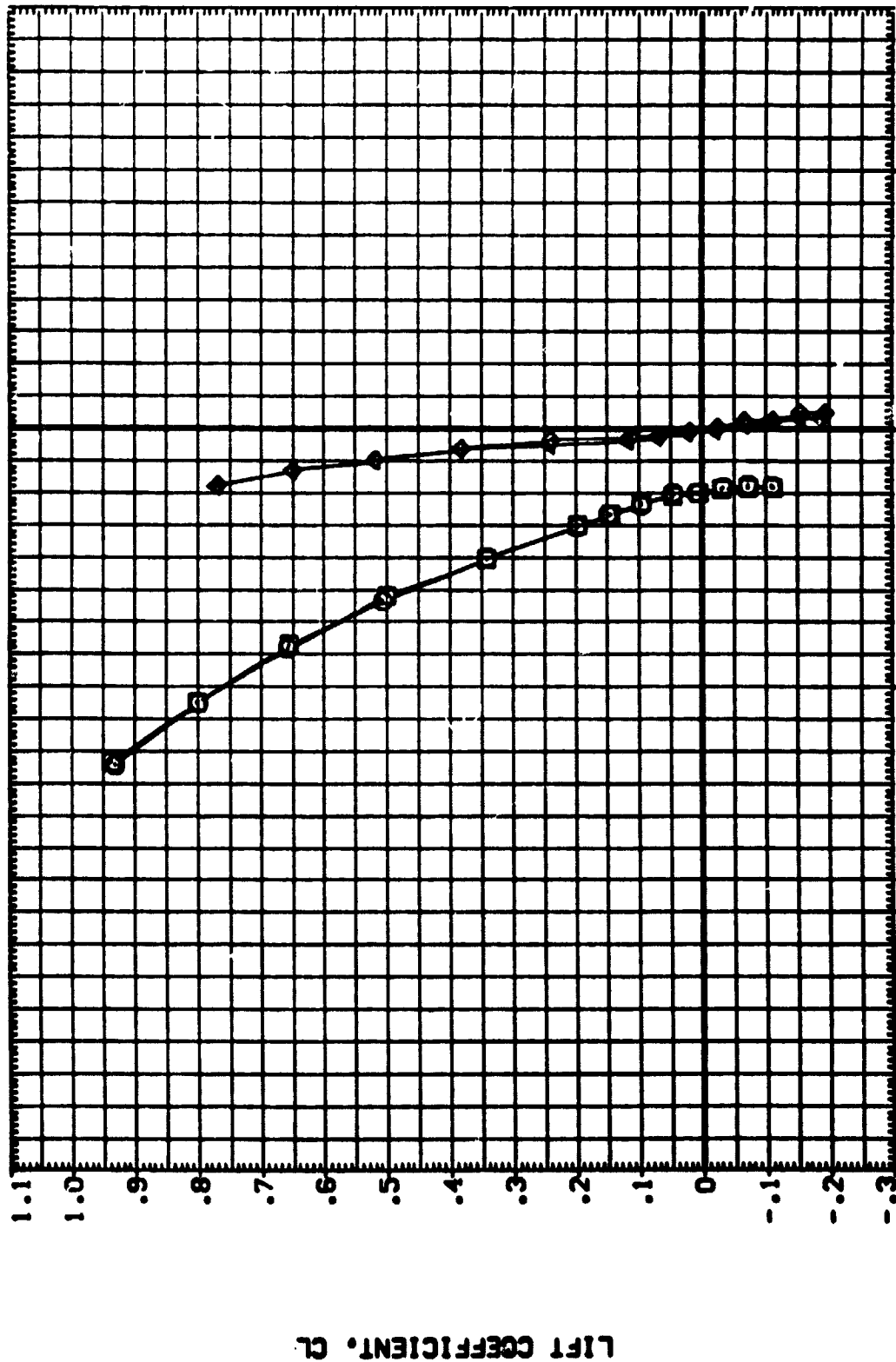


FIG. 6 STING AND NOZZLE TARES

(C)MACH = 4.63

DATA SET SYMBOL	CDG ISURATION DESCRIPTION	BETA	BD FLAP	SPDRK	ELEVON	REFERENCE INFORMATION
(E0210A)	DA-208 LARC LPVT 1087 140 A/B CRB	.000	16.300	54.920	15.000	SREF 2690.0000 SQ.FT.
(E0210B)	DA-208 LARC LPVT 1087 140 A/B CRB	.000	16.300	54.920	15.000	LREF 1290.3000 INCHES
(E0210C)	DA-208 LARC LPVT 1087 140 A/B CRB	.000	-11.700	54.920	-40.000	BREF 936.6800 INCHES
(E0210D)	DA-208 LARC LPVT 1087 140 A/B CRB	.000	-11.700	54.920	-40.000	XREF 1076.7000 INCHES
						YREF .0000 INCHES
						ZREF 375.0000 INCHES
						SCALE .0150

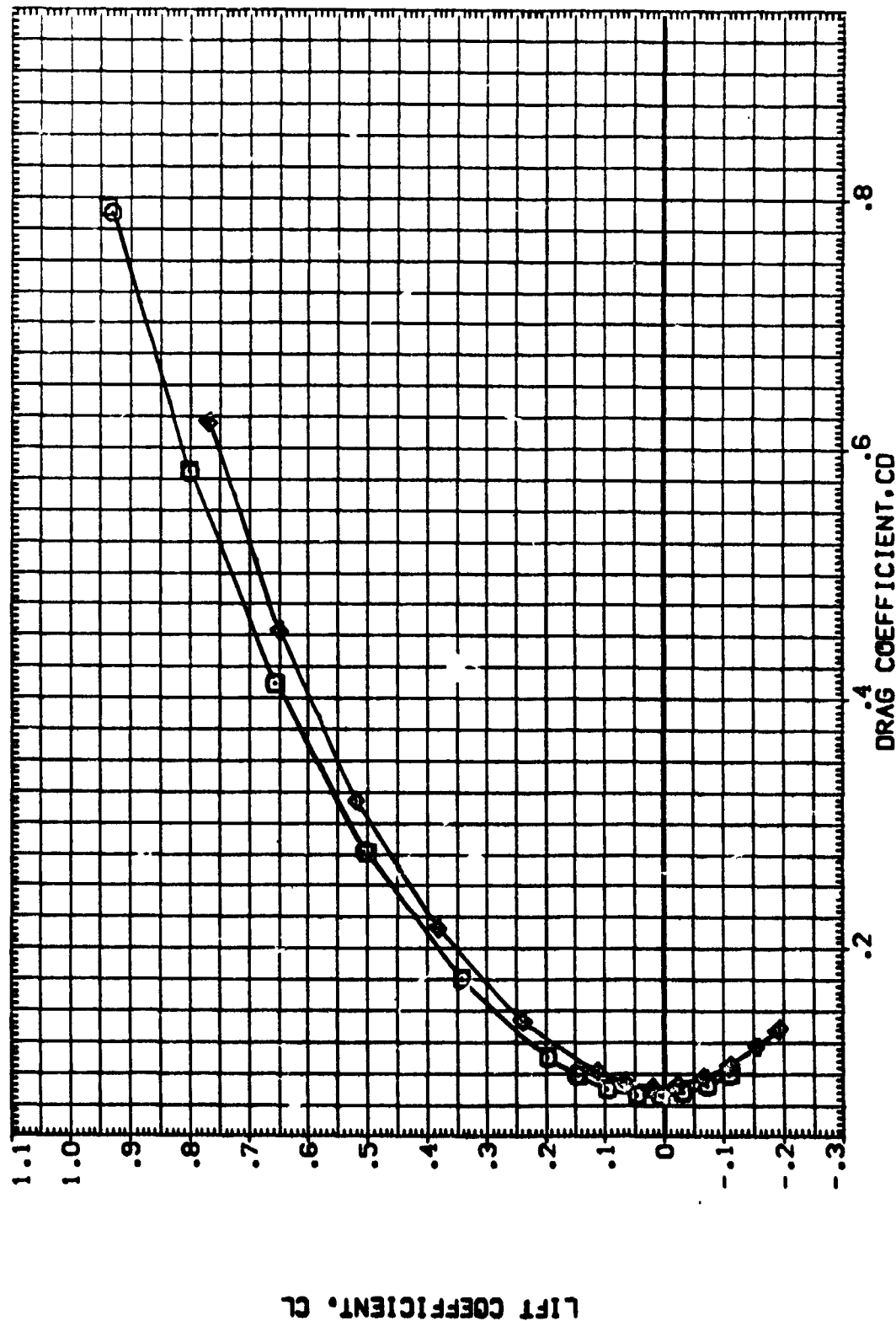


FIG. 3 STING AND NOZZLE TARES

(C)MACH = 4.63

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	SDFLAP	SPOBOK	ELEVON	REFERENCE INFORMATION
(F02104)	DA-208 LARC UPVT 1057 140 A/B 058 +DUPHY STING	.000	16.300	54.920	15.000	SREF 2650.0000 SQ.FT.
(F02110)	DA-208 LARC UPVT 1057 140 A/B 058	.000	16.300	54.920	15.000	LREF 1250.3000 INCH-ES
(F02103)	DA-208 LARC UPVT 1057 140 A/B 058 +DUPHY STING	.000	-11.700	54.920	-40.000	BREF 936.6800 INCH-ES
(F02106)	DA-208 LARC UPVT 1057 140 A/B 058	.000	-11.700	54.920	-40.000	XMRP 1076.7000 INCH-ES
						YMRP .0000 INCH-ES
						ZMRP .0000 INCH-ES
						SCALE .0150

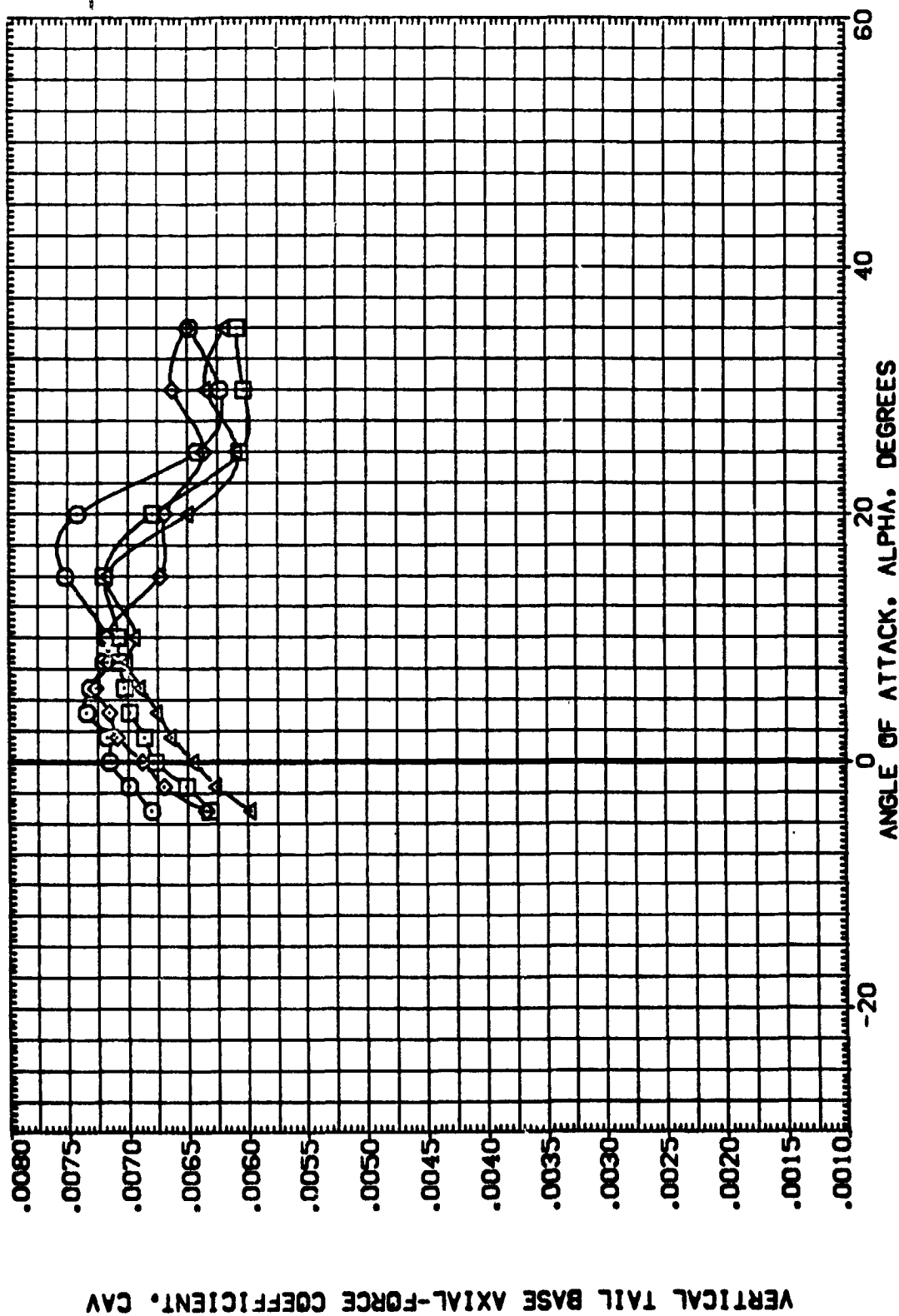


FIG. 6 STING AND NOZZLE TARES

(A)MACH = 2.50

DATA SET SYMBOL. CONFIGURATION DESCRIPTION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BOFLAP	SPOROK	ELEVON	REFERENCE INFORMATION
{F02104}	0A-208 LARC UPVT 1087 140 A/B 098	.000	16.300	54.820	15.000	SREF 2690.0000 SQ.FT.
{F02110}	0A-208 LARC UPVT 1087 140 A/B 098	.000	16.300	54.820	15.000	LREF 1290.3000 IN-ES
{F02105}	0A-208 LARC UPVT 1087 140 A/B 098	.000	-11.700	54.820	-40.000	BREF 926.6800 IN-ES
{F02106}	0A-208 LARC UPVT 1087 140 A/B 098	.000	-11.700	54.820	-40.000	YREF 1076.7000 IN-ES
						ZREF .0000 IN-ES
						SCALE 375.0000 IN-ES
						.0150

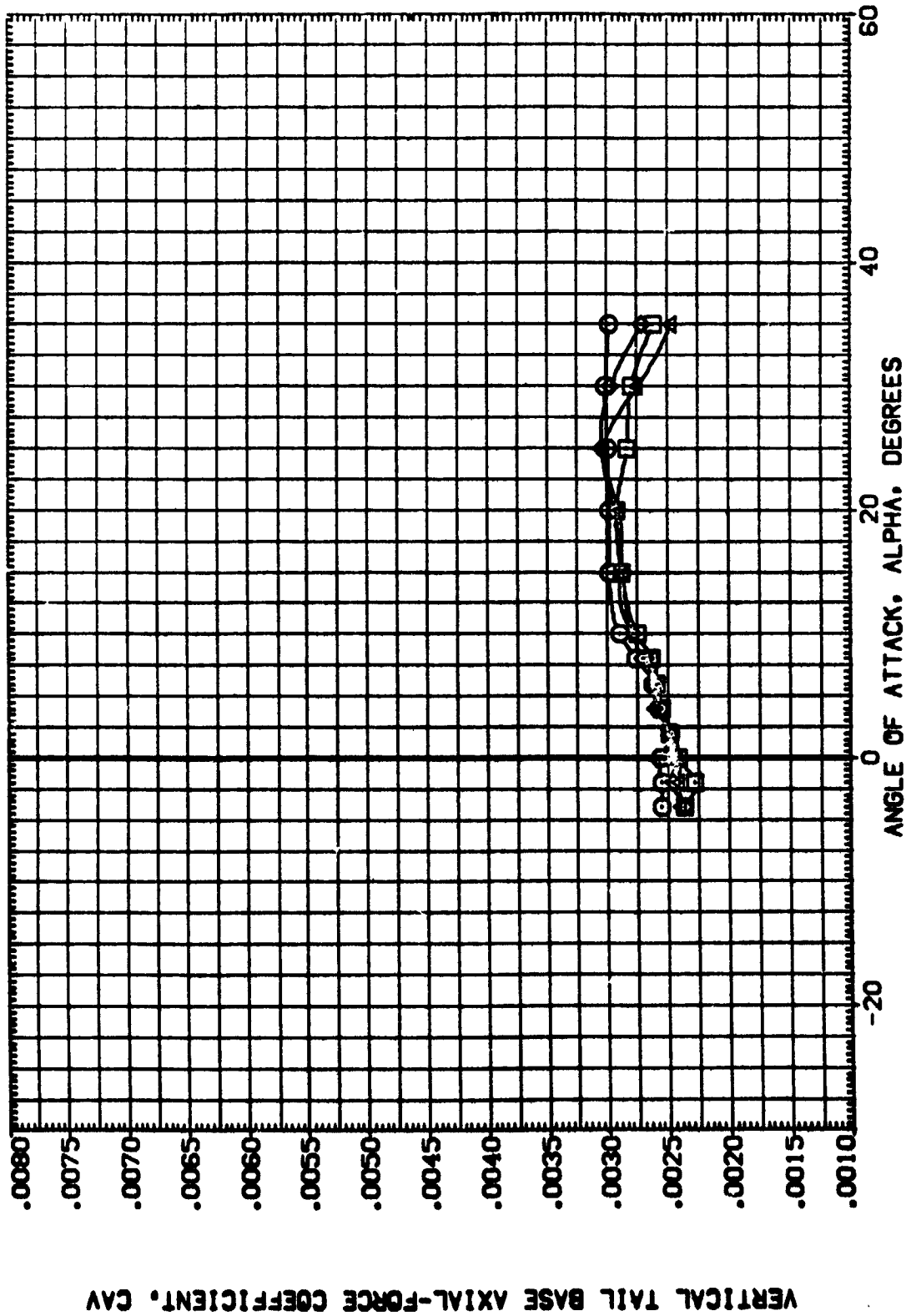


FIG. 6 STING AND NOZZLE TARES

(B)MACH = 3.95



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BOFLAP	SPDRK	ELEVON	REFERENCE INFORMATION
{F02104}	GA-208 LARC UPVT 1087 140 A/B 088 +CLIPPY STING	.000	16.300	54.920	15.000	REF 2650.0000 SO.FT.
{F02110}	GA-208 LARC UPVT 1087 140 A/B 088 +CLIPPY STING	.000	16.300	54.920	15.000	REF 1250.3000 INCHES
{F02105}	GA-208 LARC UPVT 1087 140 A/B 088 +CLIPPY STING	.000	-11.700	54.920	-40.000	REF 926.6800 INCHES
{F02106}	GA-208 LARC UPVT 1087 140 A/B 088 +CLIPPY STING	.000	-11.700	54.920	-40.000	REF 1076.7000 INCHES
						YMRP .0000 INCHES
						ZMRP .0000 INCHES
						SCALE .0150

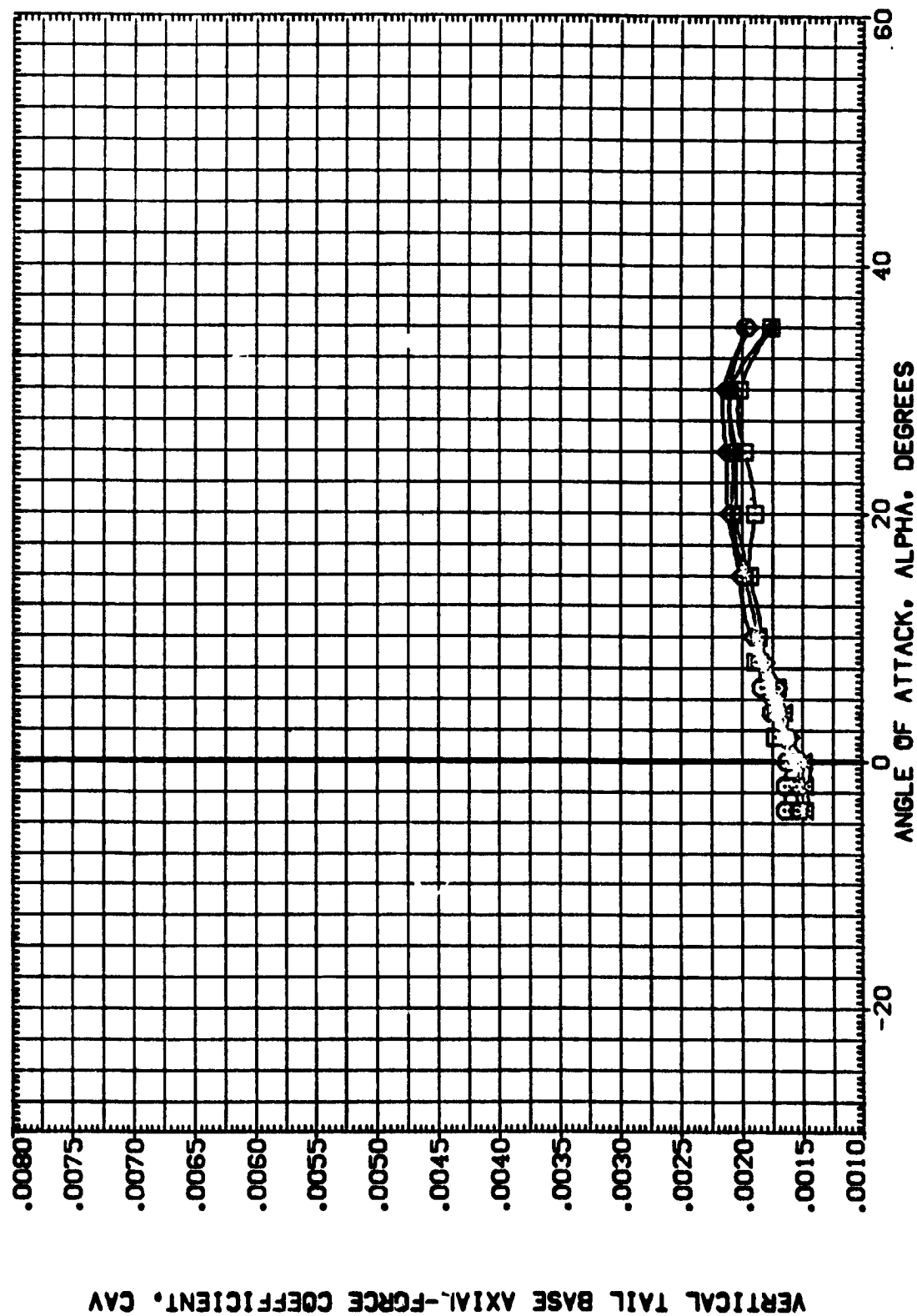


FIG. 6 STING AND NOZZLE TARES
(C)MACH = 4.63

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BDLAP	SPOBRK	ELEVON	REFERENCE INFORMATION
(F02104)	DA-208 LARC UPVT 1087 140 A/B 088 +DUPPY STING	.000	16.200	54.920	15.000	SREF 2690.0000 SQ.FT.
(F02105)	DA-208 LARC UPVT 1087 140 A/B 088 +DUPPY STING	.000	16.300	54.920	15.000	LREF 1290.3000 INCHES
(F02106)	DA-208 LARC UPVT 1087 140 A/B 088 +DUPPY STING	.000	-11.700	54.920	-40.000	BREF 936.6000 INCHES
(F02107)	DA-208 LARC UPVT 1087 140 A/B 088 +DUPPY STING	.000	-11.700	54.920	-40.000	YMRP 1076.7000 INCHES
						ZMRP 375.0000 INCHES
						SCALE .0150

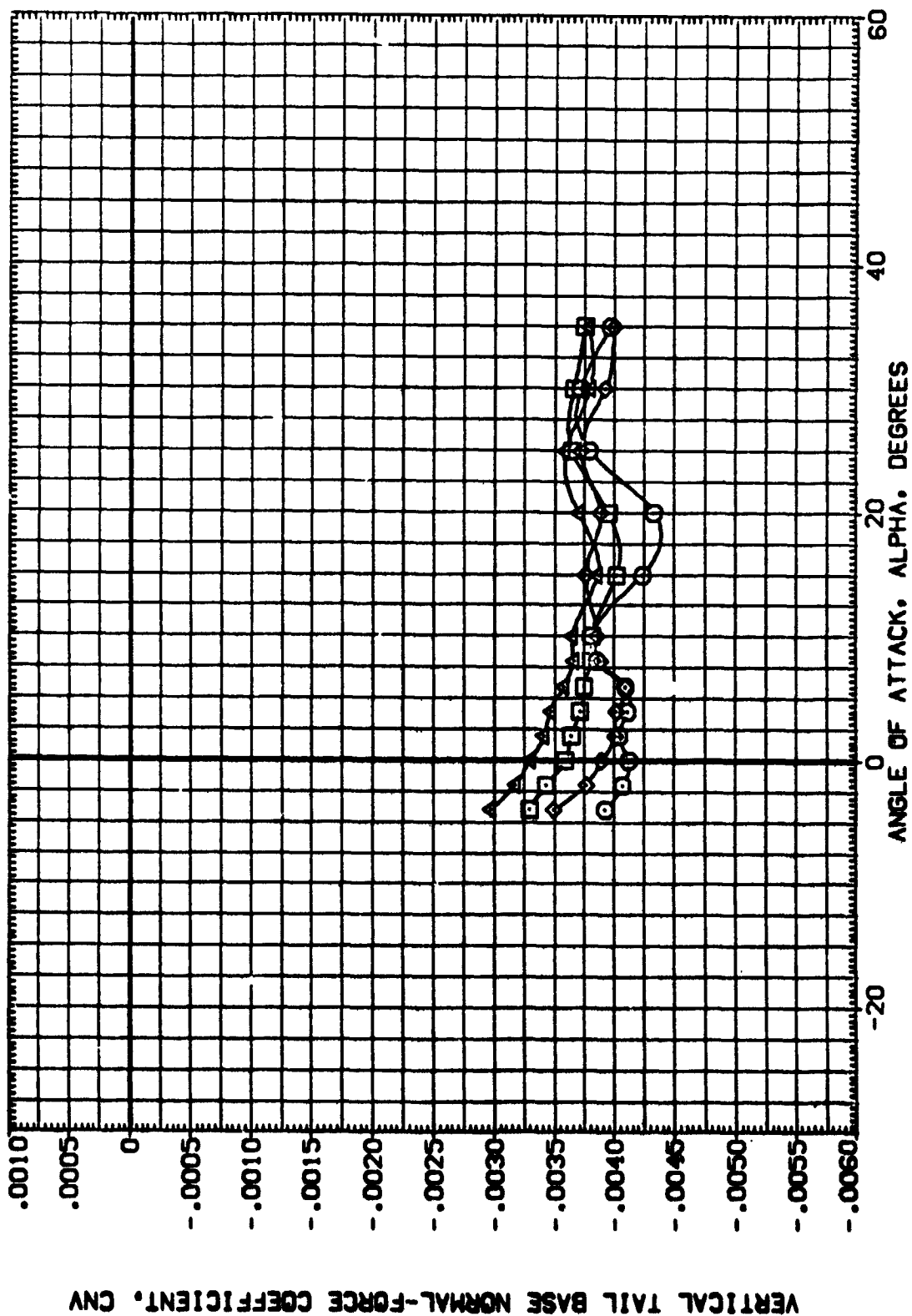


FIG. 6 STING AND NOZZLE TARES

(A)MACH = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BOFLAP	SP08XK	ELEVON	REFERENCE INFORMATION
(F02104)	0A-208 LARC UPVT 1097 140 A/B 098 +DUMMY STING	.000	16.300	54.920	15.000	SREF 2690.0000 SQ.FT.
(F02110)	0A-208 LARC UPVT 1097 140 A/B 098 +DUMMY STING	.000	16.300	54.920	15.000	LREF 1290.3000 INCHES
(F02105)	0A-208 LARC UPVT 1097 140 A/B 098 +DUMMY STING	.000	-11.700	54.920	-40.000	BREF 936.6800 INCHES
(F02106)	0A-208 LARC UPVT 1097 140 A/B 098	.000	-11.700	54.920	-40.000	XREF 1076.7000 INCHES
						THRP .0000 INCHES
						ZTRP 375.0000 INCHES
						SCALE .0150

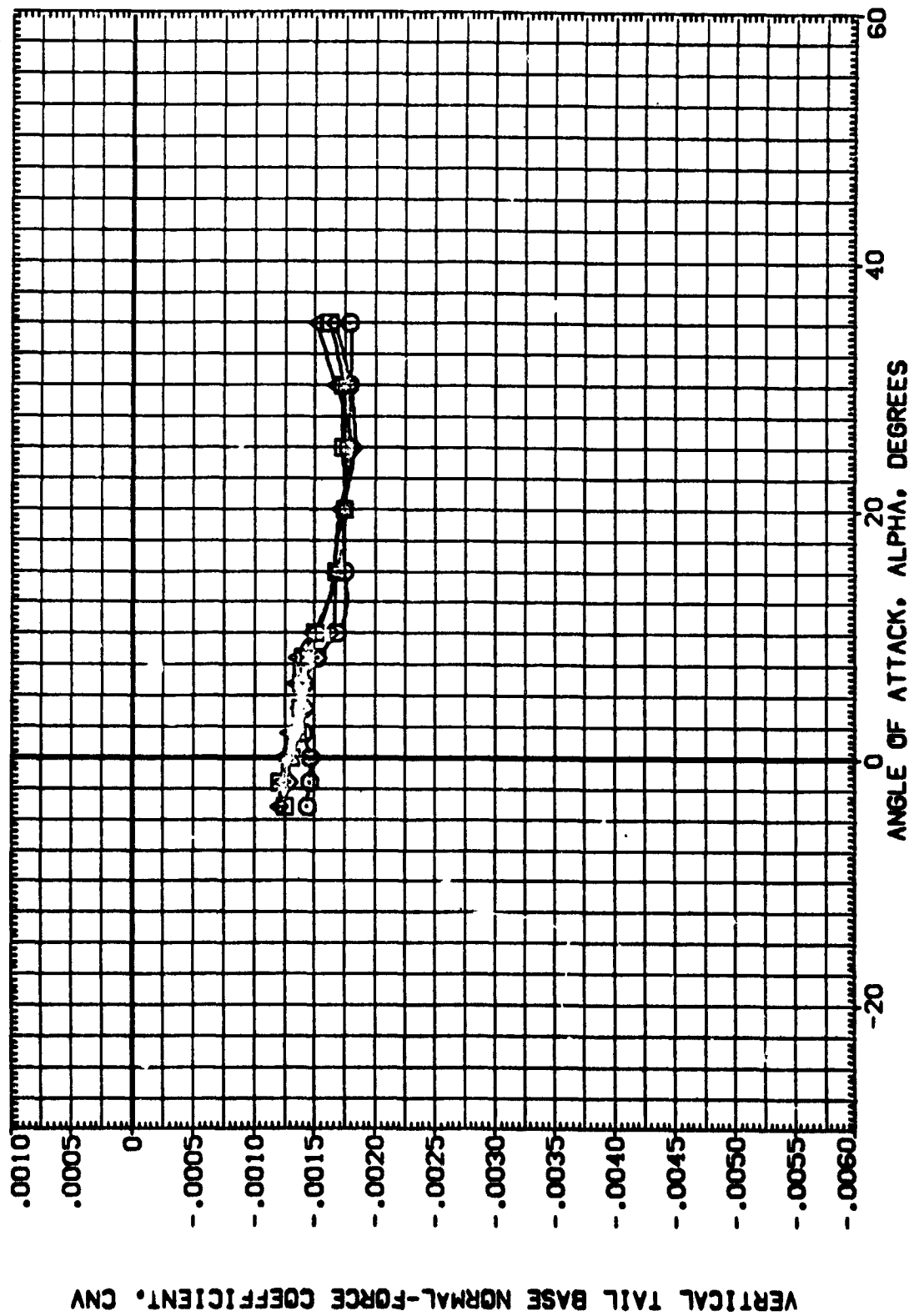


FIG. 6 STING AND NOZZLE TARES

(B)MACH = 3.95

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BD FLAP	SPOBRK	ELEVON	REFERENCE INFORMATION
{F02104}	0A-208 LANC UPVT 1057 140 A/B 0RB	.000	16.300	54.520	15.000	SREF 2690.0000 SQ.FT.
{F02110}	0A-208 LANC UPVT 1057 140 A/B 0RB	.000	16.300	54.520	15.000	LREF 1250.3000 IN-ES
{F02105}	0A-208 LANC UPVT 1057 140 A/B 0RB	.000	-11.700	54.520	-40.000	BREF 936.6800 IN-ES
{F02106}	0A-208 LANC UPVT 1057 140 A/B 0RB	.000	-11.700	54.520	-40.000	XMRP 1076.7000 IN-ES
						YMRP .0000 IN-ES
						ZMRP 375.0000 IN-ES
						SCALE .0150

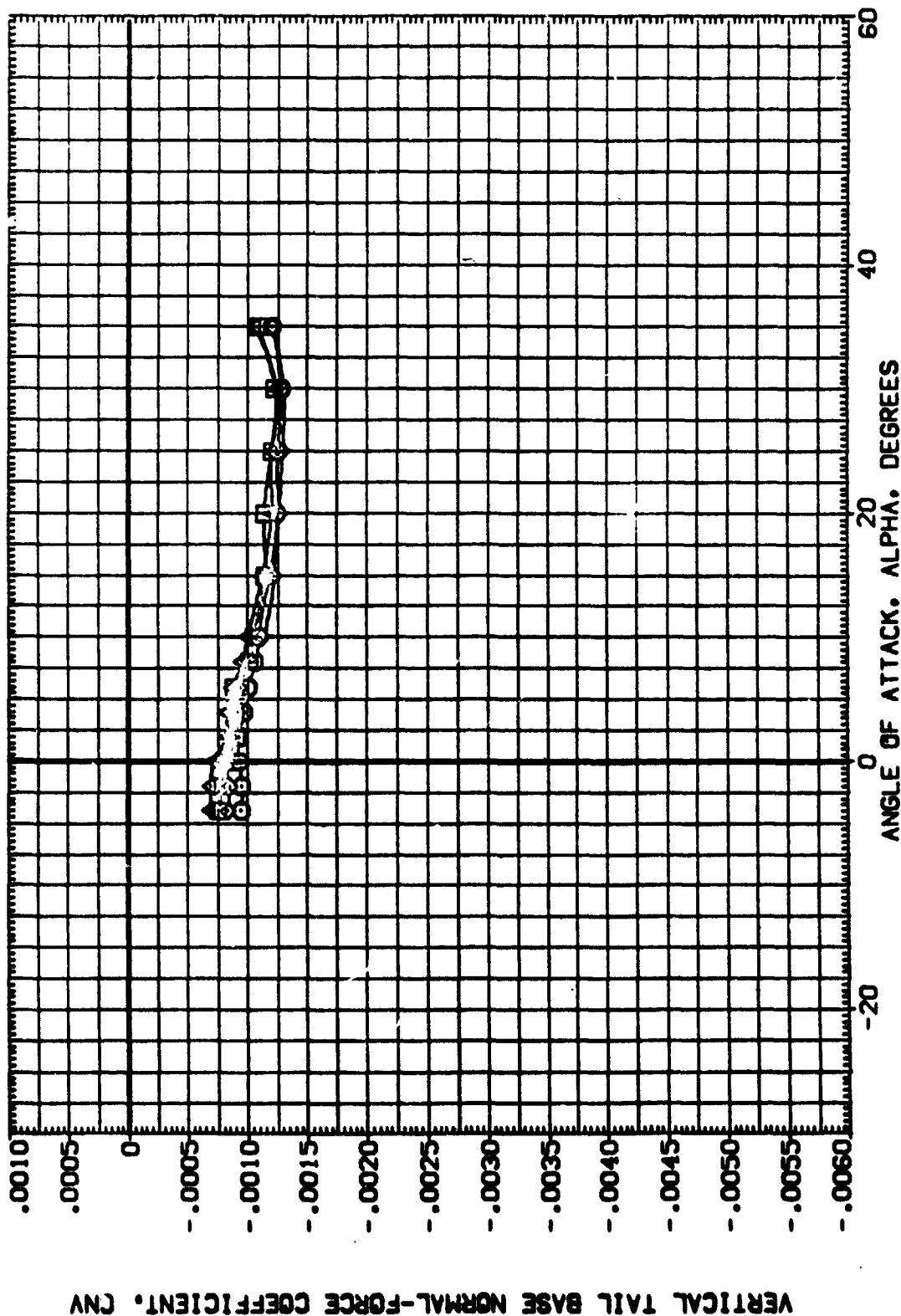


FIG. 6 STING AND NOZZLE TARES

(C)MACH = 4.63



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BD FLAP	SPD BRK	ELEVON	REFERENCE INFORMATION
{F02104}	GA-208 LARC UPVT 1087 140 A/B 0/8	.000	16.300	54.920	15.000	SREF 2680.0000 50. FT.
{F02110}	GA-208 LARC UPVT 1087 140 A/B 0/8	.000	16.300	54.920	15.000	LREF 1290.3000 100. ES
{F02105}	GA-208 LARC UPVT 1087 140 A/B 0/8	.000	-11.700	54.920	-40.000	SREF 536.8800 100. ES
{F02106}	GA-208 LARC UPVT 1087 140 A/B 0/8	.000	-11.700	54.920	-40.000	XREF 1076.7000 100. ES
						YREF 375.0000 100. ES
						ZREF 375.0000 100. ES
						SCALE .0150

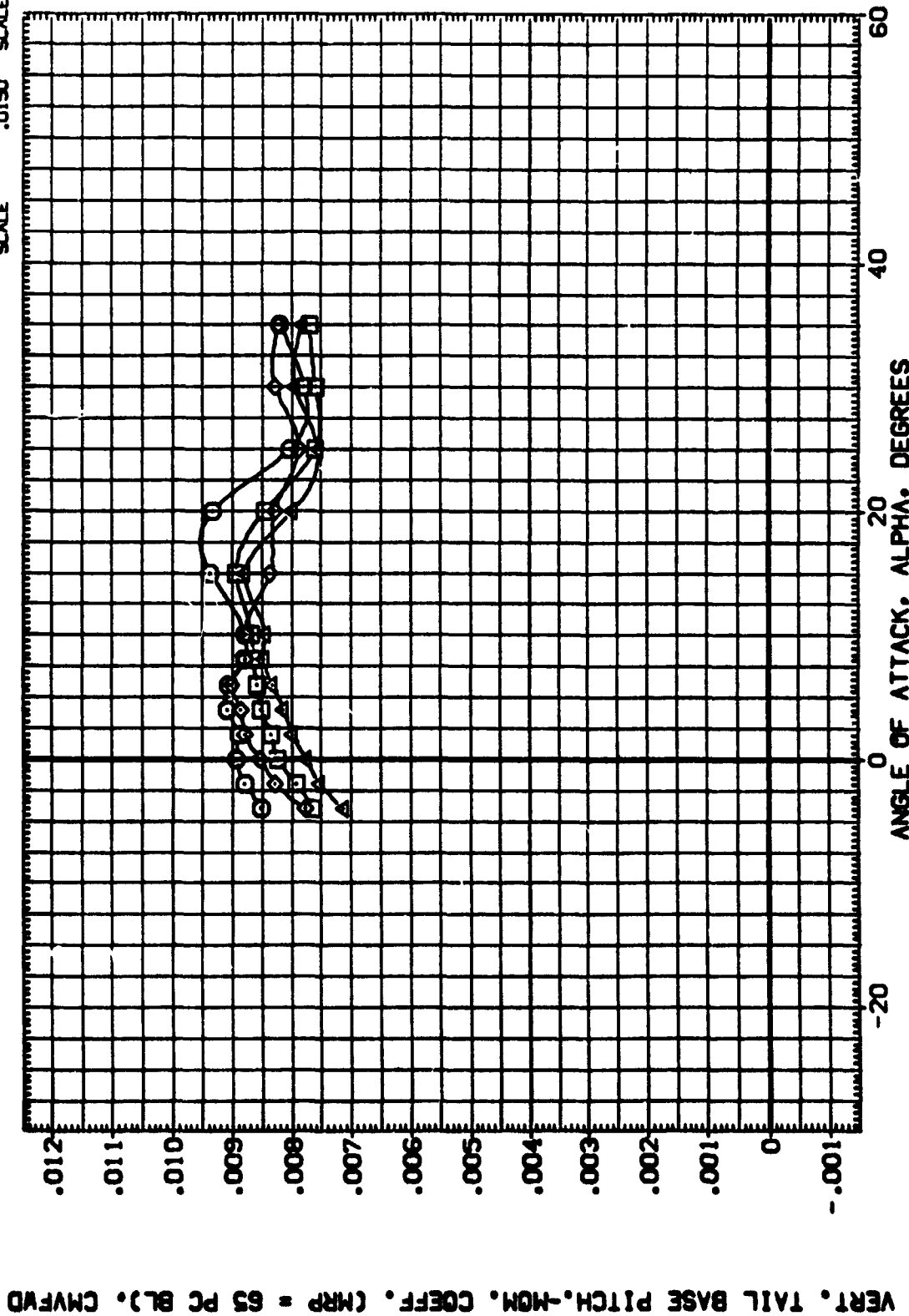


FIG. 6 STING AND NOZZLE TARES
(A)MACH = 2.50

DATA SET 00000. CONFIGURATION DESCRIPTION

CONFIGURATION	UPVT	1007	140	A/B	000	BETA	BOFLAP	SPORCK	ELEVON	REFERENCE INFORMATION
0A-208 LANC	UPVT	1007	140	A/B	000	.000	16.300	54.920	15.000	SRF 2630.0000
0A-208 LANC	UPVT	1007	140	A/B	000	.000	16.300	54.920	15.000	LNRF 1290.3000
0A-208 LANC	UPVT	1007	140	A/B	000	.000	16.300	54.920	15.000	BRF 936.6300
0A-208 LANC	UPVT	1007	140	A/B	000	.000	-11.700	54.920	-40.000	YPRP 1076.7000
0A-208 LANC	UPVT	1007	140	A/B	000	.000	-11.700	54.920	-40.000	YPRP 375.0000
										SCALE .0150

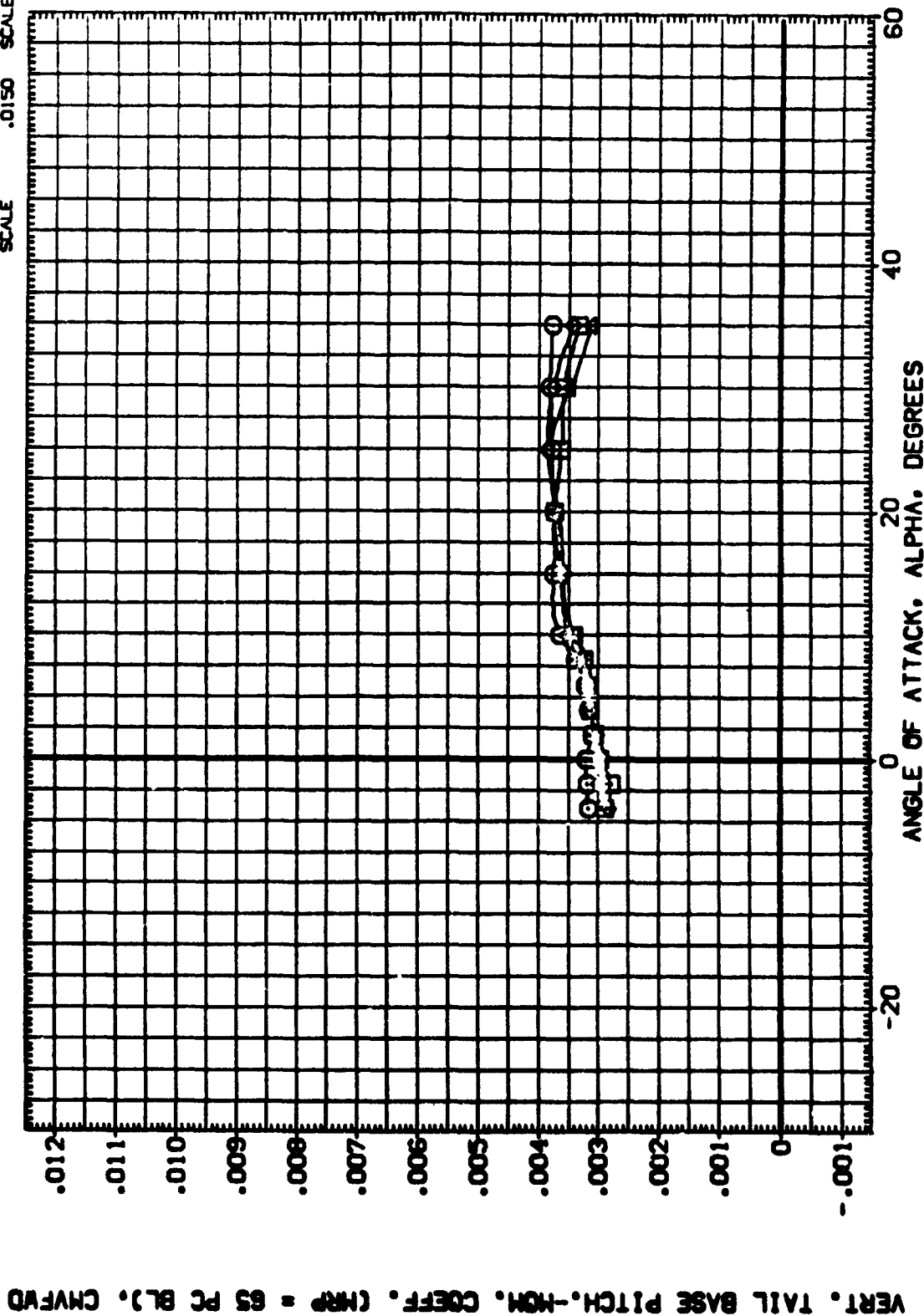


FIG. 6 STING AND NOZZLE TARES

(B)MACH = 3.95

DATA SET OVERL. CONFIGURATION DESCRIPTION

DATA SET OVERL.	CONFIGURATION DESCRIPTION	BETA	SOFLAP	SPORK	ELEVON	REFERENCE INFORMATION
{F02104}	0A-208 LARC UPVT 1087 140 A/B 088 +DJMY STING	.000	16.300	54.520	15.000	SREF 2600.0000 50.0000
{F02110}	0A-208 LARC UPVT 1087 140 A/B 088 +DJMY STING	.000	16.300	54.520	15.000	LREF 1250.3000 INO-ES
{F02105}	0A-208 LARC UPVT 1087 140 A/B 088 +DJMY STING	.000	-11.700	54.520	-40.000	BREF 906.6800 INO-ES
{F02108}	0A-208 LARC UPVT 1087 140 A/B 088	.000	-11.700	54.520	-40.000	XREF 1076.7000 INO-ES
						YREF .0000 INO-ES
						ZREF 375.0000 INO-ES
						SCALE .0150 SCALE

VERT. TAIL BASE PITCH.-MON. COEFF. (MRP = 67.5 PC BL.). CHVAFT

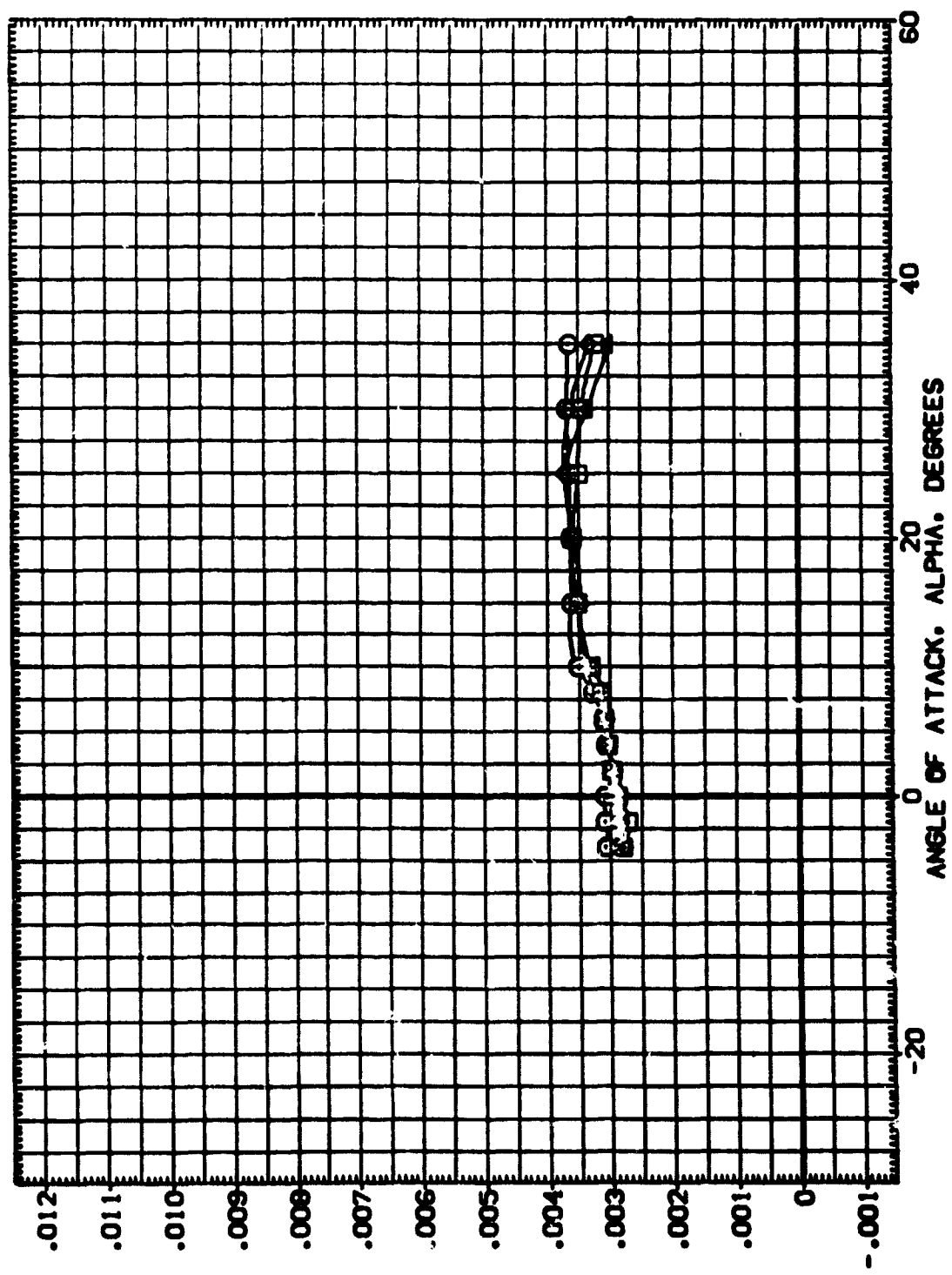


FIG. 6 STING AND NOZZLE TARES

(B)MACH = 3.95

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	BDLAP	SPDRK	ELEVON	REFERENCE INFORMATION
{F02104}	□	DA-208 LARC UPVT 1087 140 A/B DB	.000	16.300	54.920	15.000	SREF 2690.0000 SQ.FT.
{F02105}	×	DA-208 LARC UPVT 1087 140 A/B DB	.000	16.300	54.920	15.000	LREF 1290.3000 INCHES
{F02106}		DA-208 LARC UPVT 1087 140 A/B DB	.000	-11.700	54.920	-40.000	BREF 936.6800 INCHES
		DA-208 LARC UPVT 1087 140 A/B DB	.000	-11.700	54.920	-40.000	XREF 1076.7000 INCHES
							YREF .0000 INCHES
							ZREF 375.0000 INCHES
							SCALE .0150

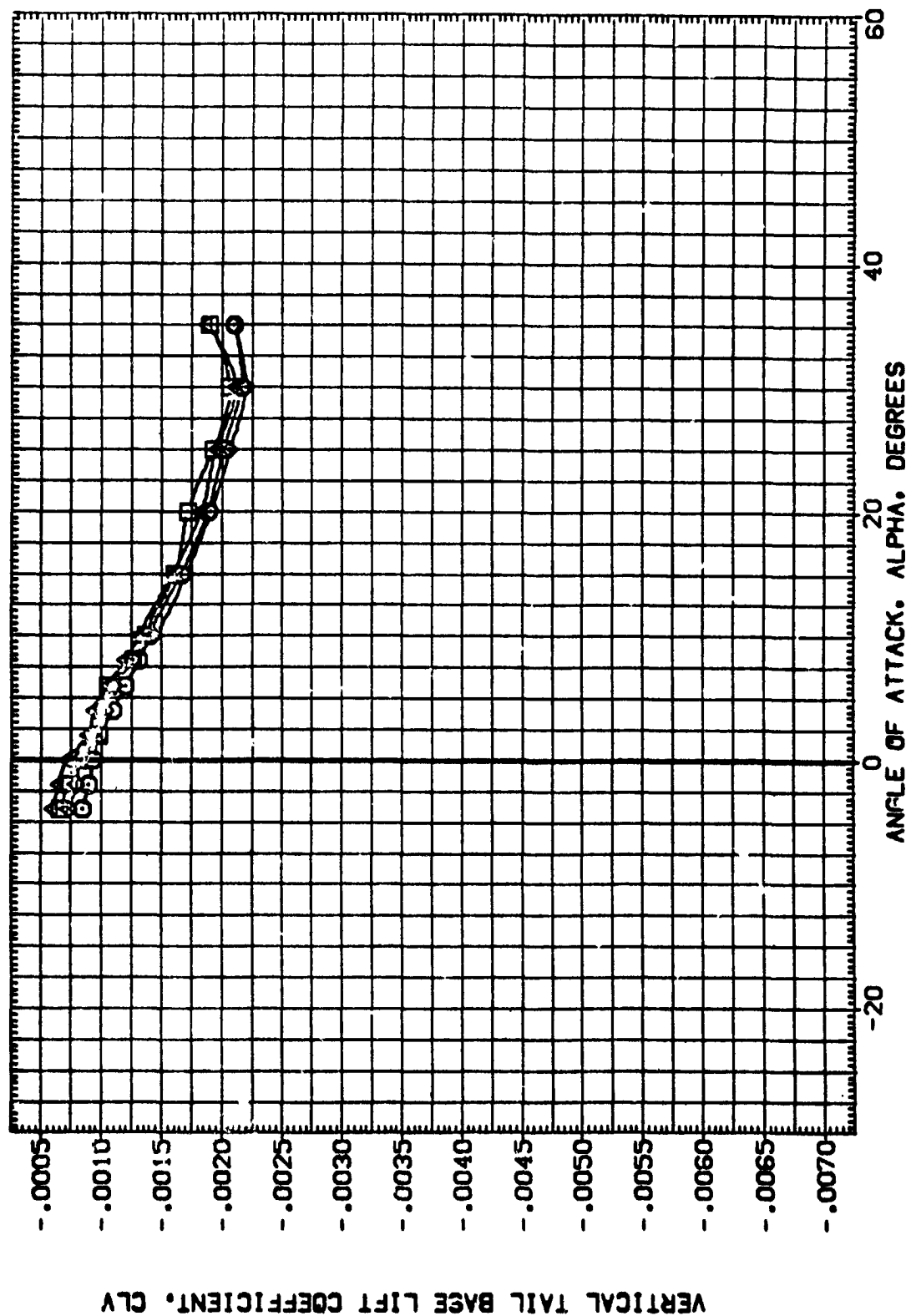
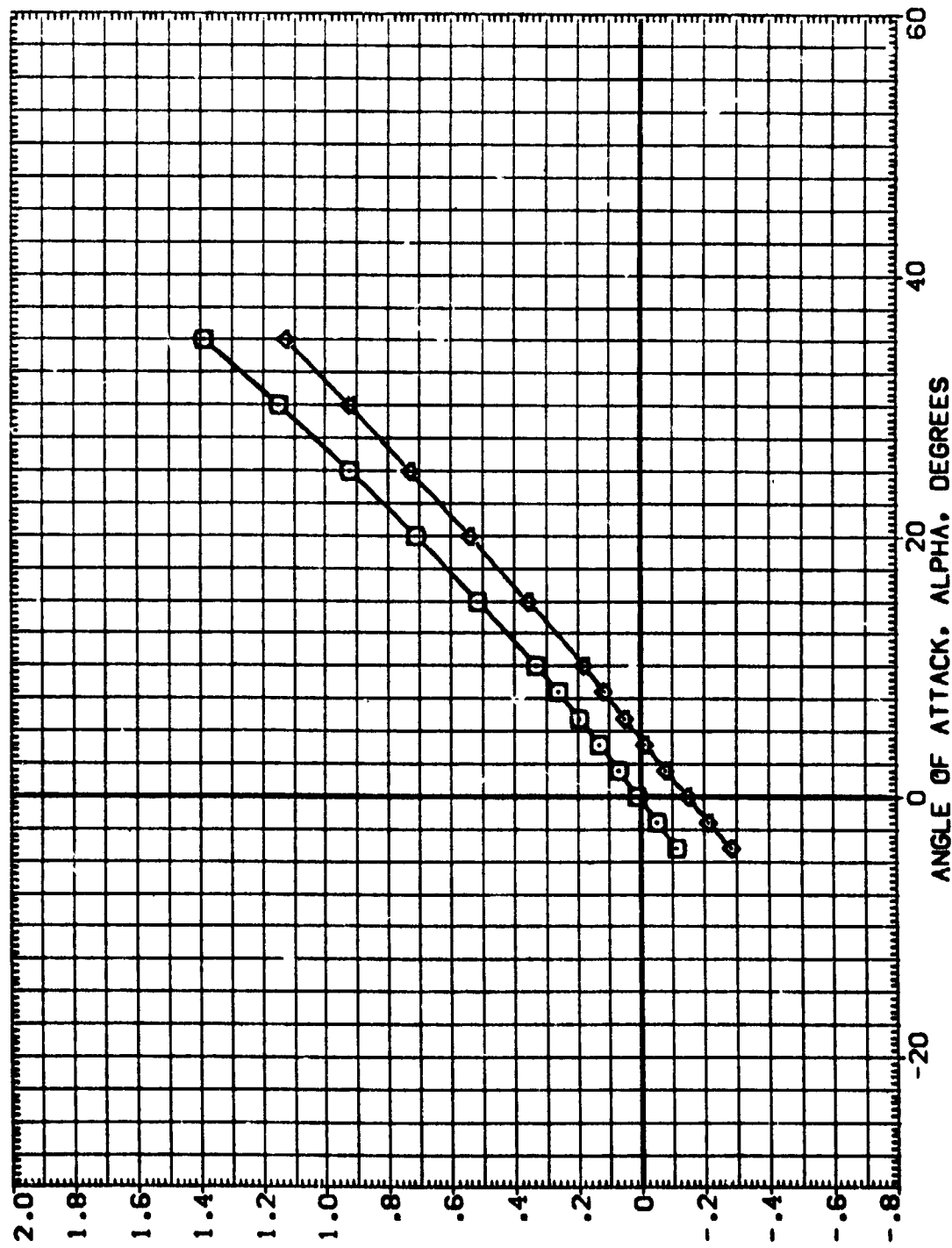


FIG. 6 STING AND NOZZLE TARES

(C)MACH = 4.63

DATA SET SYMBOL	LOAD INFORMATION DESCRIPTION	BETA	BOFLAP	SPORBK	ELEVON	REFERENCE INFORMATION
{ 822104 }	GA-208 LARC UPVT 1087 140 A/B 078	.000	16.300	54.820	15.000	SREF 7690.0000 50.000
{ 822110 }	GA-208 LARC UPVT 1087 140 A/B 078	.000	16.300	54.820	15.000	LREF 1290.3000 100.000
{ 822105 }	GA-208 LARC UPVT 1087 140 A/B 078	.000	-11.700	54.820	-40.000	BREF 936.6800 100.000
{ 822106 }	GA-208 LARC UPVT 1087 140 A/B 078	.000	-11.700	54.820	-40.000	XREF 1076.7000 100.000
						YREF .0000 100.000
						ZREF .0000 100.000
						SCALE .0150



TOTAL NORMAL-FORCE COEFFICIENT(CN + CNV) , CNT

FIG. 6 STING AND NOZZLE TARES

(A)MACH = 2.50



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BD FLAP	SPOONK	ELEVON	REFERENCE INFORMATION
{002104}	0A-208 LANC UPVT 1057 140 A/B 008	.000	16.300	54.520	15.000	2690.0000 SQ.FT.
{002105}	0A-208 LANC UPVT 1057 140 A/B 008	.000	16.300	54.520	15.000	1290.3000 INCHES
{002106}	0A-208 LANC UPVT 1057 140 A/B 008	.000	-11.700	54.520	-40.000	936.6800 INCHES
{002107}	0A-208 LANC UPVT 1057 140 A/B 008	.000	-11.700	54.520	-40.000	1076.7000 INCHES
						YMRP .0000 INCHES
						ZMRP .0000 INCHES
						SCALE .0150

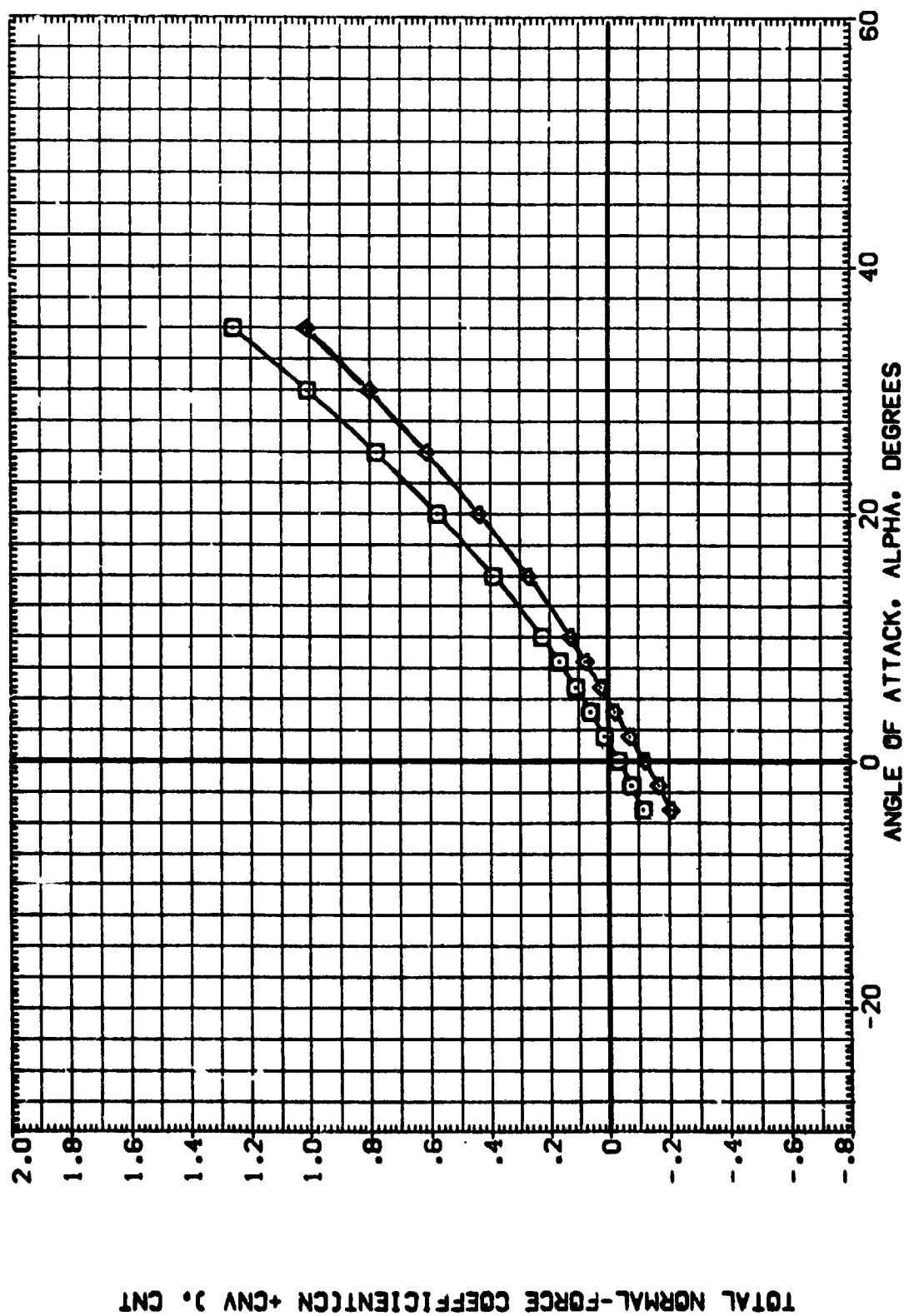
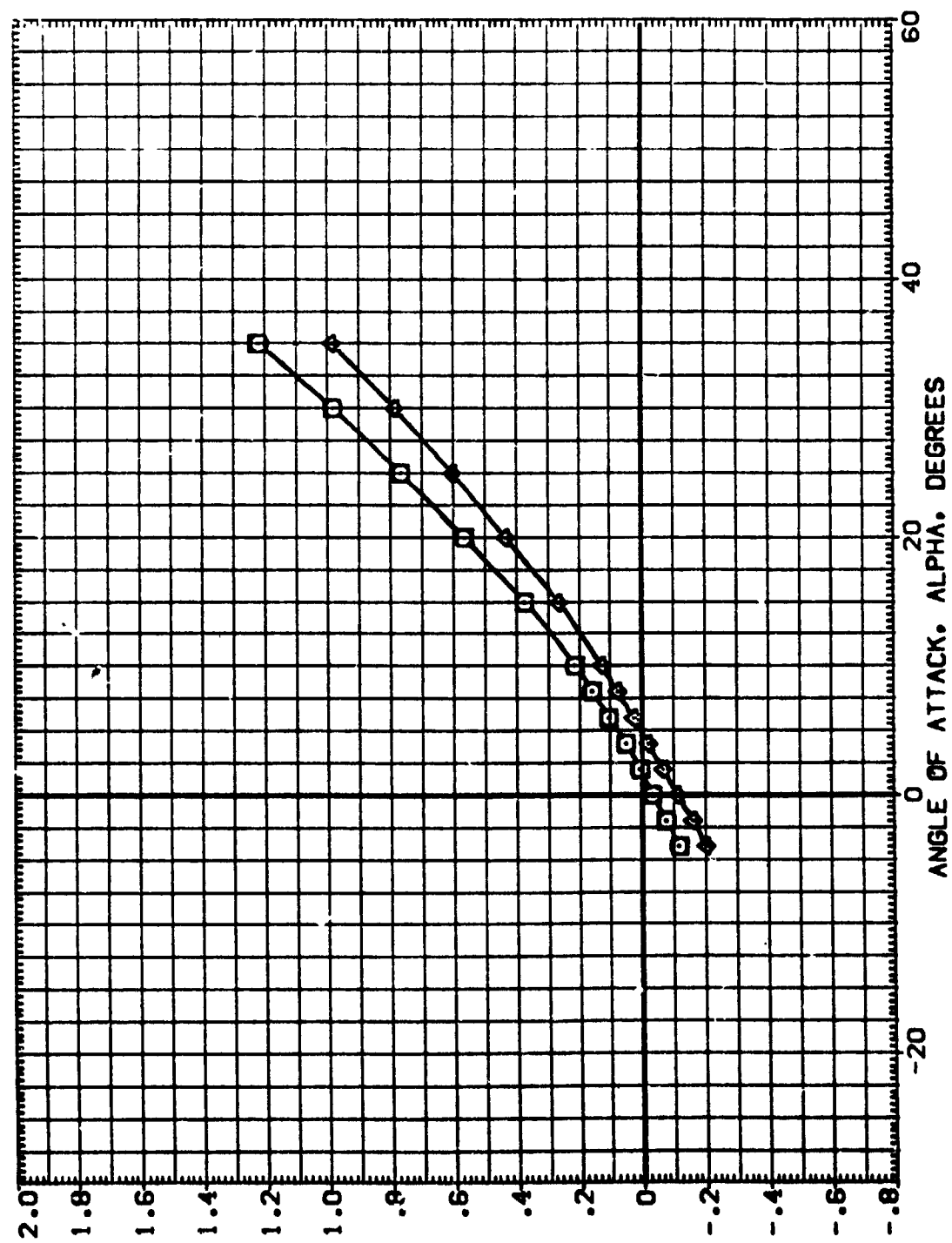


FIG. 6 STING AND NOZZLE TARES
(B)MACH = 3.95

DATA SET SYMB. CONFIGURATION DESCRIPTION

DATA SET SYMB.	CONFIGURATION DESCRIPTION	BETA	BOFLAP	SPDBRK	ELEVON	REFERENCE INFORMATION
{002104}	0A-208 LARC UPVT 1057 140 A/B DBB +DUMMY STING	.000	16.300	54.920	15.000	SREF 2690.0000 SQ.FT.
{002105}	0A-208 LARC UPVT 1057 140 A/B DBB +DUMMY STING	.000	16.300	54.920	15.000	LREF 1290.3000 INCHES
{002106}	0A-208 LARC UPVT 1057 140 A/B DBB +DUMMY STING	.000	-11.700	54.920	-40.000	SREF 506.8800 INCHES
{002108}	0A-208 LARC UPVT 1057 140 A/B DBB	.000	-11.700	54.920	-40.000	XPRP 1076.7000 INCHES
						YPRP .0000 INCHES
						ZPRP .0000 INCHES
						SCALE .0150



TOTAL NORMAL-FORCE COEFFICIENT(CN + CNV), CNT

FIG. 6 STING AND NOZZLE TARES
(C)MACH = 4.63



DATA SET	SHEET	CONFIGURATION	DESCRIPTION	BETA	BOFLAP	SPDRK	ELEVON	REFERENCE INFORMATION
002104	1	BA-208	LARC UPVT 1087 140 A/B 0/0	.000	18.300	54.520	15.000	SREF 2650.0000 SO.FT.
002110	1	BA-208	LARC UPVT 1087 140 A/B 0/0	.000	18.300	54.520	15.000	LREF 1250.3000 INO-ES
002105	1	BA-208	LARC UPVT 1087 140 A/B 0/0	.000	-11.700	54.520	-40.000	BREF 936.6800 INO-ES
002106	1	BA-208	LARC UPVT 1087 140 A/B 0/0	.000	-11.700	54.520	-40.000	XREF 1076.7000 INO-ES
								YREF 0.0000 INO-ES
								ZREF 375.0000 INO-ES
								SCALE .0150

TOTAL PITCH.-MOM. COEFF.(MRP = 63.0 PC BL) CLM +CMVFD + CMTFVD

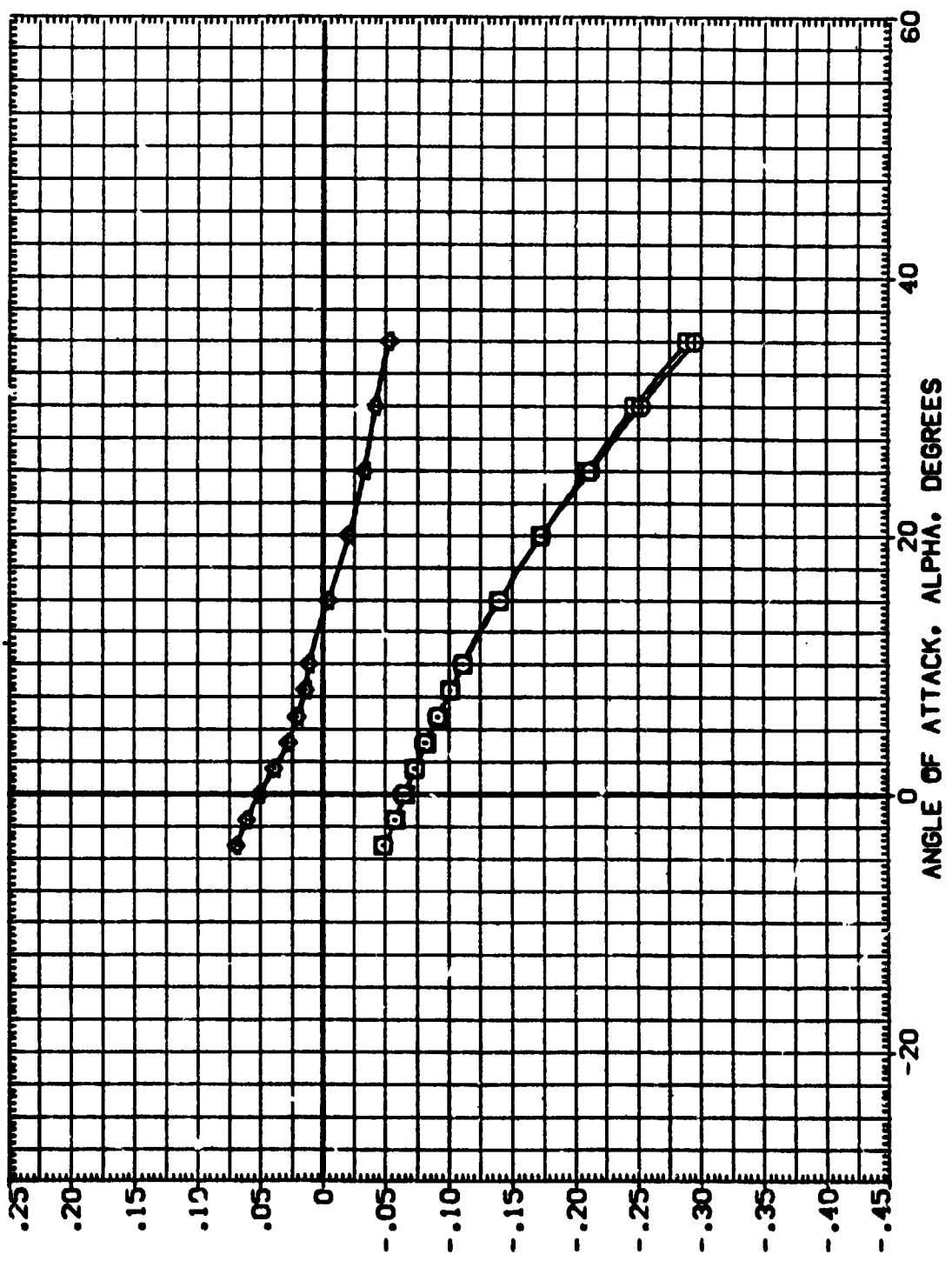


FIG. 6 STING AND NOZZLE TARES

(A)MACH = 2.50

DATA SET	SWBL	CONFIGURATION DESCRIPTION	BETA	BDLAP	SPOBOK	ELEVON	REFERENCE INFORMATION
000101	000	0A-208 LARC UPVT 1087 140 A/B 098	.000	15.300	54.920	15.000	2690.0000 60. FT.
000102	000	0A-208 LARC UPVT 1087 140 A/B 098	.000	15.300	54.920	15.000	1290.3000 INCHES
000103	000	0A-208 LARC UPVT 1087 140 A/B 098	.000	-11.700	54.920	-40.000	936.6800 INCHES
000104	000	0A-208 LARC UPVT 1087 140 A/B 098	.000	-11.700	54.920	-40.000	1076.7000 INCHES
000105	000	0A-208 LARC UPVT 1087 140 A/B 098	.000	-11.700	54.920	-40.000	375.0000 INCHES
000106	000	0A-208 LARC UPVT 1087 140 A/B 098	.000	-11.700	54.920	-40.000	SCALE .0150

TOTAL PITCH.-MOM. COEFF.(MRP = 65.0 PC BL) CLM +CHVFD + CMTFD

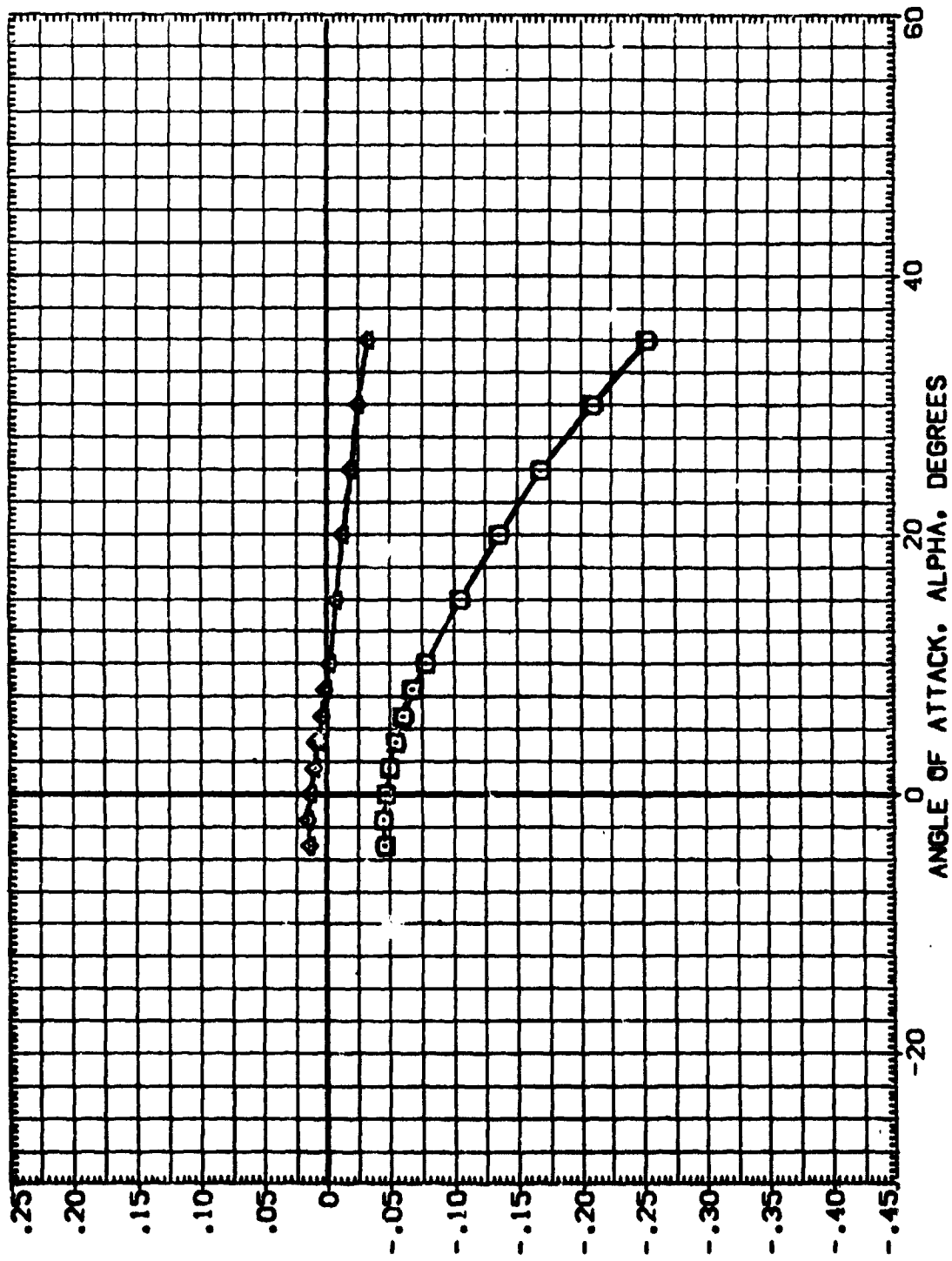


FIG. 6 STING AND NOZZLE TARES
(M)MACH = 3.95



DATA SET SYMBOL CONFIGURATION DESCRIPTION

DATA SET SYMBOL	CONFIGURATION	DESCRIPTION	BETA	BD FLAP	SPUSK	ELEVON	REFERENCE INFORMATION
002104	0A-208 LARC UPVT 1087 140 A/S 008	DUMMY STING	.000	16.300	54.520	15.000	SREF 2690.0000 SQ.FT.
002105	0A-208 LARC UPVT 1087 140 A/S 008	DUMMY STING	.000	16.300	54.520	15.000	LREF 1290.3000 INCHES
002106	0A-208 LARC UPVT 1087 140 A/S 008	DUMMY STING	.000	-11.700	54.520	-40.000	BREF 536.6800 INCHES
002108	0A-208 LARC UPVT 1087 140 A/S 008	DUMMY STING	.000	-11.700	54.520	-40.000	XMRP 1076.7000 INCHES
002109	0A-208 LARC UPVT 1087 140 A/S 008	DUMMY STING	.000	-11.700	54.520	-40.000	YMRP .0000 INCHES
002110	0A-208 LARC UPVT 1087 140 A/S 008	DUMMY STING	.000	-11.700	54.520	-40.000	ZMRP 375.0000 INCHES
002111	0A-208 LARC UPVT 1087 140 A/S 008	DUMMY STING	.000	-11.700	54.520	-40.000	SCALE .0150

TOTAL PITCH.-MM. COEFF.(MRP = 65.0 PC BL) CLM +CHWFD + CMTFD

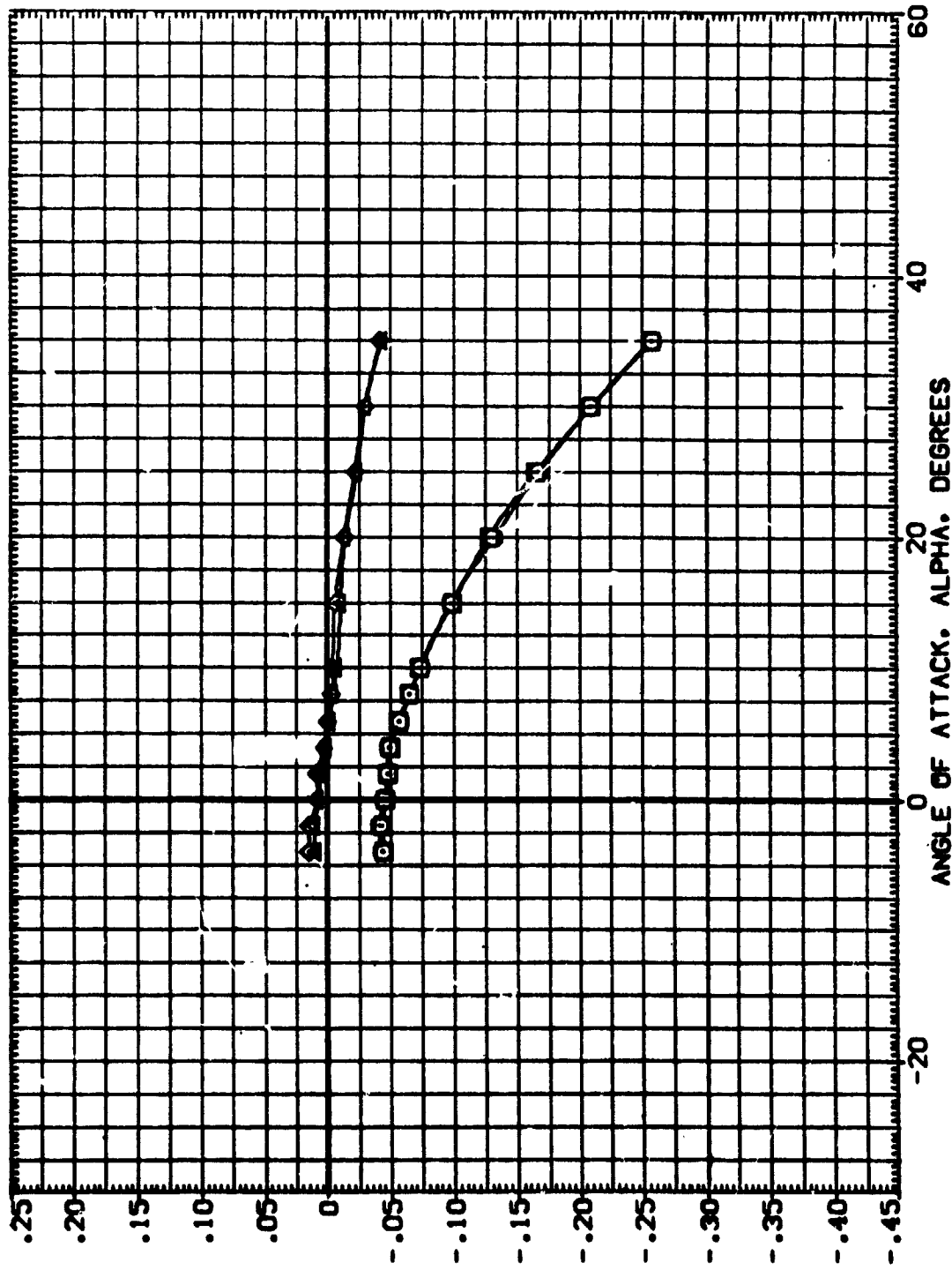


FIG. 6 STING AND NOZZLE TARES

(C)MACH = 4.63

DATA SET SYMBOL	CONF. ISOLATION DESCRIPTION	BETA	BD FLAP	SPD BRK	ELEVON	REFERENCE INFORMATION
{002104}	BA-208 LARC UPVT 1057 140 A/B 008	.000	16.300	54.920	15.000	SREF 2690.0000 SQ.FT.
{002110}	BA-208 LARC UPVT 1057 140 A/B 008	.000	16.300	54.920	15.000	LREF 1290.3000 INCHES
{002105}	BA-208 LARC UPVT 1057 140 A/B 008	.000	-11.700	54.920	-40.000	BREF 976.6800 INCHES
{002106}	BA-208 LARC UPVT 1057 140 A/B 008	.000	-11.700	54.920	-40.000	XREF 1076.7000 INCHES
						YREF .0000 INCHES
						ZREF 375.0000 INCHES
						SCALE .0150

TOTAL PITCH.-MOM. COEFF. (MRP = 67.5 PC BL) CLMAFT + CMVAFT + CMIAFT

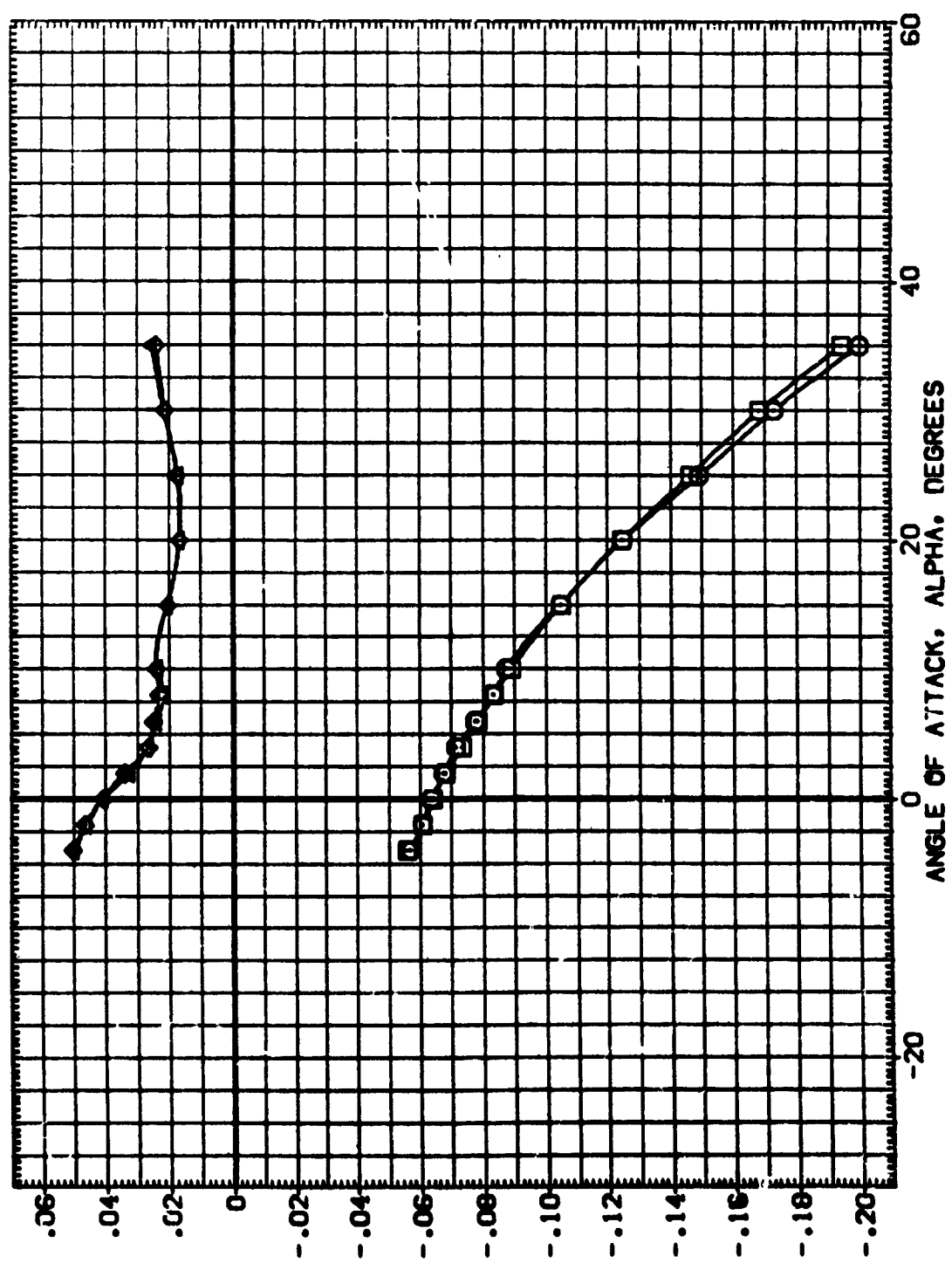


FIG. 6 STING AND NOZZLE TARES

(MACH = 2.50)



TOTAL PITCH, -HOM. COEFF. (MRP = 87.5 PC BL) CLMAFT + CHMAFT + CHTAFT

DATA SET OVER				CONFIRMATION DESCRIPTION				BETA				SPDRK				ELEVON				REFERENCE INFORMATION			
01	01	01	01	01	01	01	01	000	000	000	000	54.520	54.520	54.520	54.520	15.000	15.000	15.000	15.000	SREF	2650.0000	50.00	50.00
02	02	02	02	02	02	02	02	000	000	000	000	54.520	54.520	54.520	54.520	15.000	15.000	15.000	15.000	LREF	1250.3000	10.00	10.00
03	03	03	03	03	03	03	03	000	000	000	000	54.520	54.520	54.520	54.520	-40.000	-40.000	-40.000	-40.000	BREF	936.6800	10.00	10.00
04	04	04	04	04	04	04	04	000	000	000	000	54.520	54.520	54.520	54.520	-40.000	-40.000	-40.000	-40.000	MRP	1076.7000	10.00	10.00
05	05	05	05	05	05	05	05	000	000	000	000	54.520	54.520	54.520	54.520	-40.000	-40.000	-40.000	-40.000	ZMRP	375.0000	10.00	10.00
06	06	06	06	06	06	06	06	000	000	000	000	54.520	54.520	54.520	54.520	-40.000	-40.000	-40.000	-40.000	SCALE	375.0000	10.00	10.00
07	07	07	07	07	07	07	07	000	000	000	000	54.520	54.520	54.520	54.520	-40.000	-40.000	-40.000	-40.000				

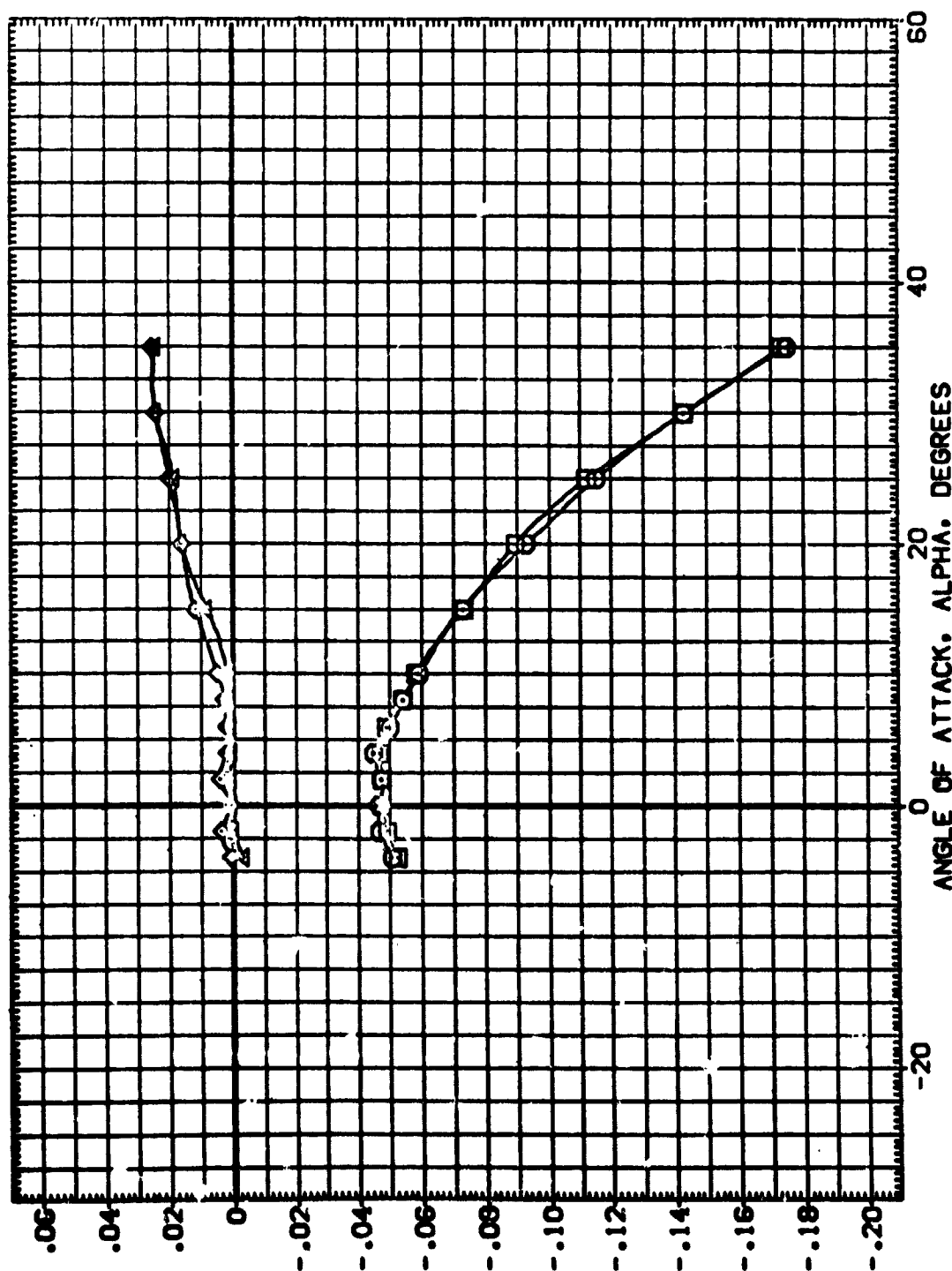
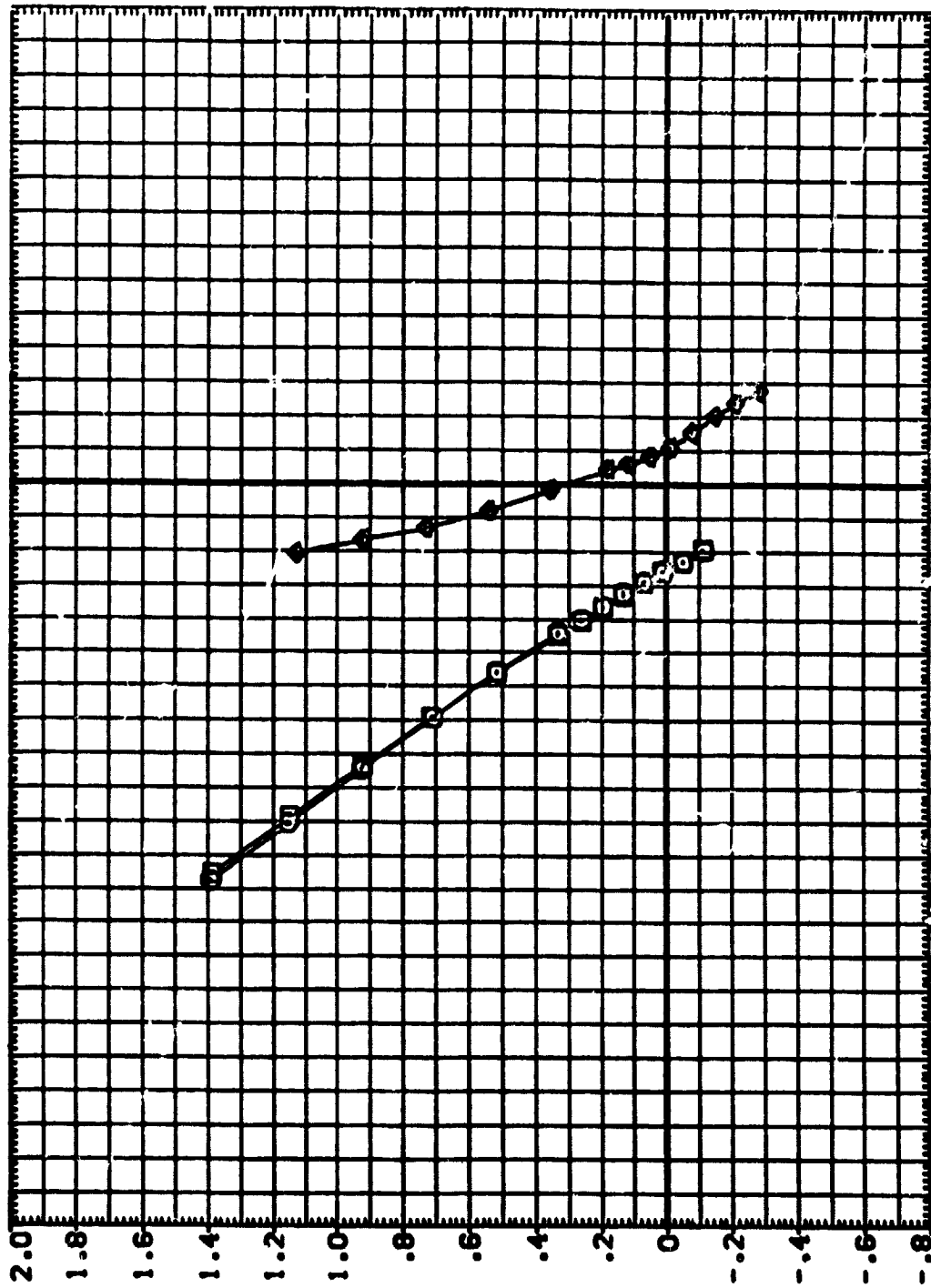


FIG. 6 STING AND NOZZLE TARES
(C)MACH = 4.63

DATA SET	CHARGE	CONFIGURATION	DESCRIPTION	BETA	BOFLAP	SPORX	ELEVON	REFERENCE INFORMATION
{002104}	GA-208	LARC	UPVT 1057 140 A/B 038	.000	15.300	54.520	15.000	SREF 2690.0000 SQ.FT.
{002110}	GA-208	LARC	UPVT 1057 140 A/B 038	.000	15.300	54.520	15.000	LBREF 1290.3000 INO-ES
{002105}	GA-208	LARC	UPVT 1057 140 A/B 038	.000	-11.700	54.520	-40.000	BRREF 505.6200 INO-ES
{002106}	GA-208	LARC	UPVT 1057 140 A/B 038	.000	-11.700	54.520	-40.000	YPRP 1076.7000 INO-ES
								ZPRP .0000 INO-ES
								SCALE 375.0000 INO-ES
								SCALE .0150



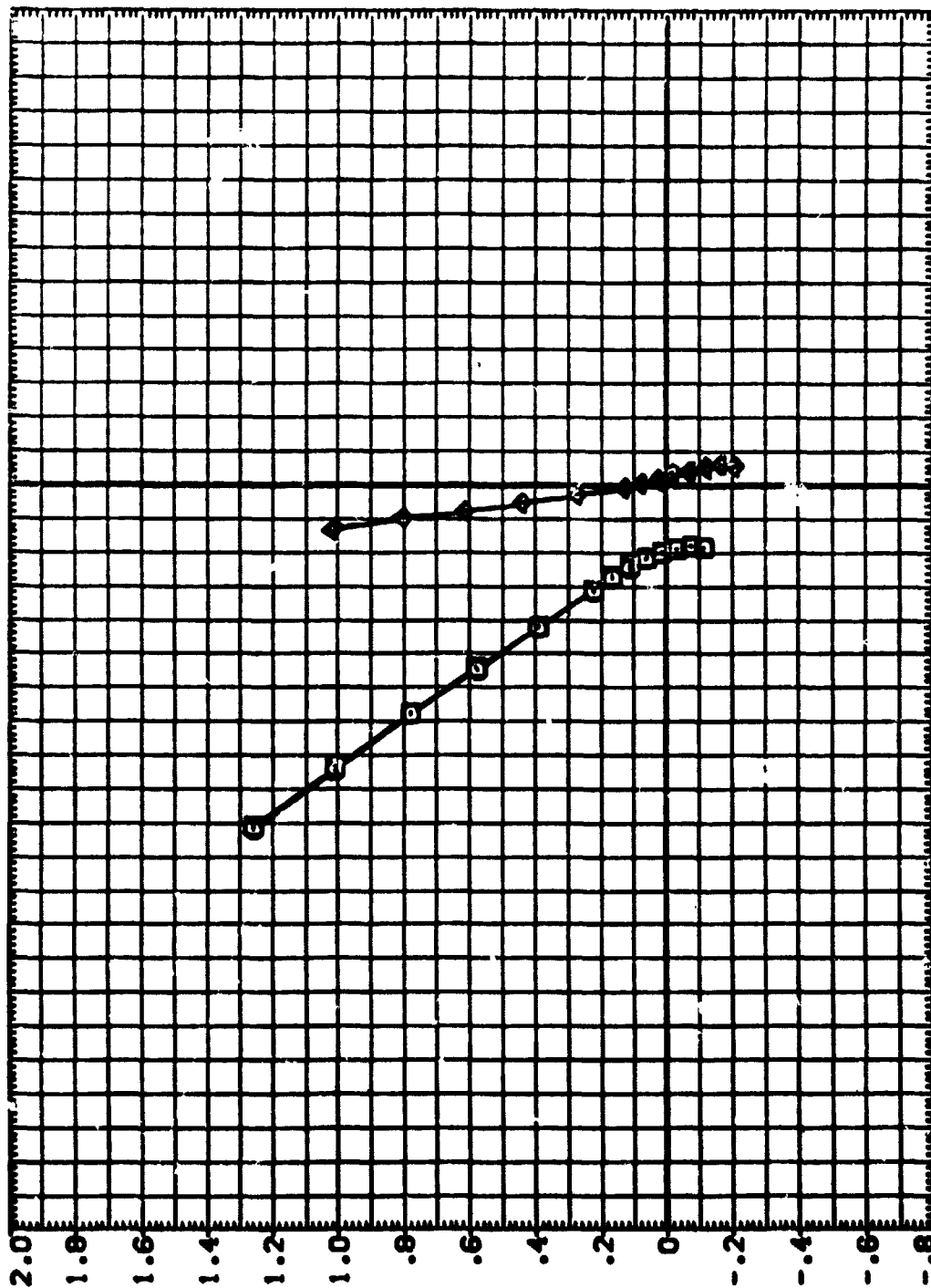
TOTAL PITCH-MOM. COEFF.(CMRP = 65.0 PC BL) CLM + CMVFD .2

FIG. 6 STING AND NOZZLE TARES

(A)MACH = 2.50

DATA SET SPEED. CONFIGURATION DESCRIPTION

DATA SET	SPEED	CONFIGURATION	DESCRIPTION	BETA	BD FLAP	SPDRK	ELEVON	REFERENCE INFORMATION
(002104)	100	0A-208	LARC UNPT 1007 140 A/B 078	.000	16.300	54.920	15.000	SRF 2850.0000 SO.FT.
(002110)	100	0A-208	LARC UNPT 1007 140 A/B 078	.000	16.300	54.920	15.000	LRF 1250.3000 INCHES
(002105)	100	0A-208	LARC UNPT 1007 140 A/B 078	.000	-11.700	54.920	-40.000	BRF 933.6000 INCHES
(002106)	100	0A-208	LARC UNPT 1007 140 A/B 078	.000	-11.700	54.920	-40.000	YMRP 1076.7000 INCHES
								ZMRP 375.0000 INCHES
								SCALE .0150



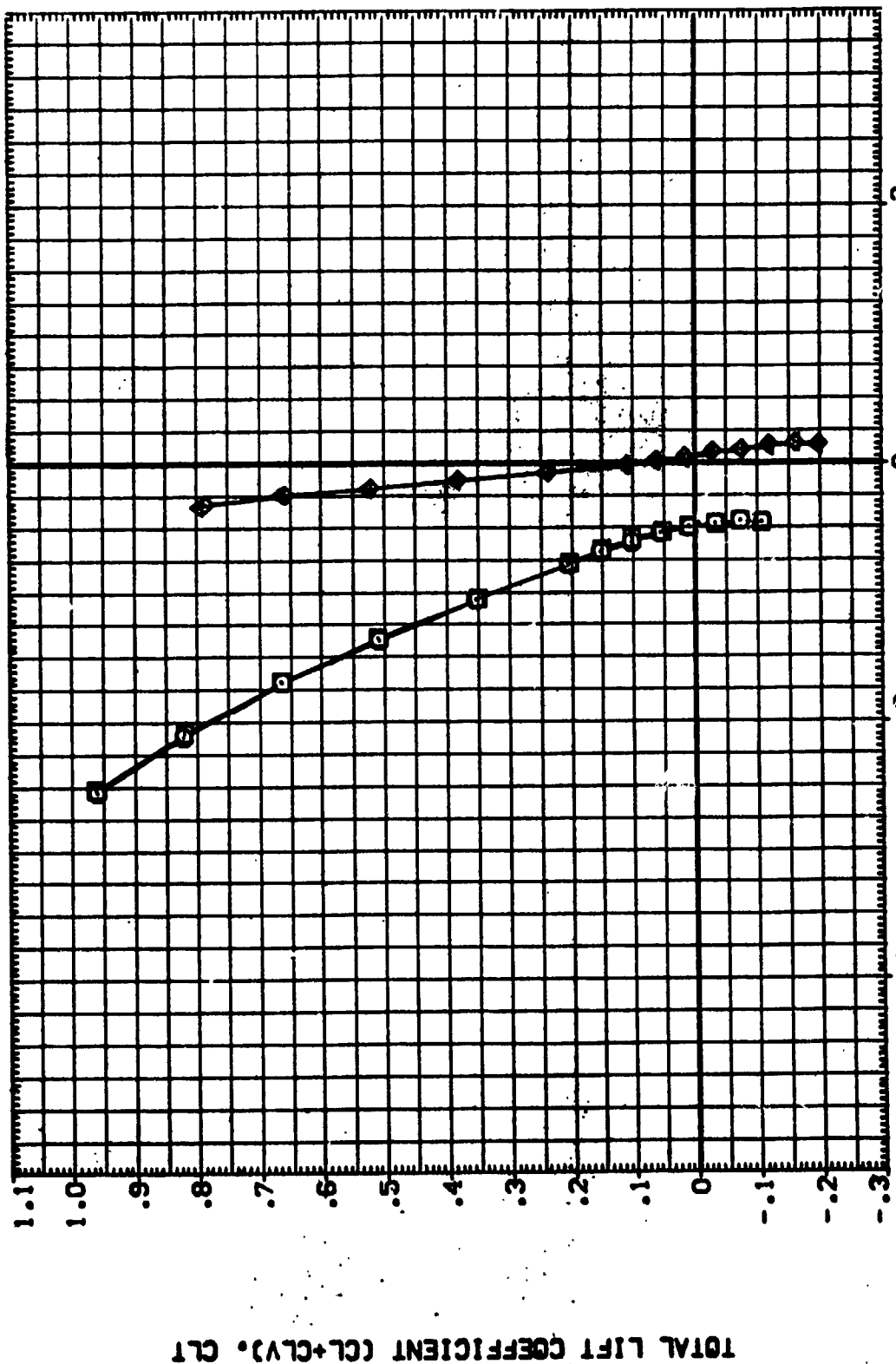
TOTAL PITCH-MOM. COEFF. (MRP = 65.0 PC BL) CLM + CMFWD . CMTFWD

FIG. 6 STING AND NOZZLE TARES

(B) MACH = 3.95

DATA SET	SPEED	CONF	COLL	DESCRIPTION	BETA	REFLAP	SPIN	ELEV	REFERENCE INFORMATION
(000104)	000	000	000	000	000	15.000	34.500	15.000	00.FT.
(000105)	000	000	000	000	000	15.000	34.500	15.000	00.FT.
(000106)	000	000	000	000	000	15.000	34.500	15.000	00.FT.
(000107)	000	000	000	000	000	15.000	34.500	15.000	00.FT.
(000108)	000	000	000	000	000	15.000	34.500	15.000	00.FT.
(000109)	000	000	000	000	000	15.000	34.500	15.000	00.FT.
(000110)	000	000	000	000	000	15.000	34.500	15.000	00.FT.
(000111)	000	000	000	000	000	15.000	34.500	15.000	00.FT.
(000112)	000	000	000	000	000	15.000	34.500	15.000	00.FT.
(000113)	000	000	000	000	000	15.000	34.500	15.000	00.FT.
(000114)	000	000	000	000	000	15.000	34.500	15.000	00.FT.
(000115)	000	000	000	000	000	15.000	34.500	15.000	00.FT.
(000116)	000	000	000	000	000	15.000	34.500	15.000	00.FT.
(000117)	000	000	000	000	000	15.000	34.500	15.000	00.FT.
(000118)	000	000	000	000	000	15.000	34.500	15.000	00.FT.
(000119)	000	000	000	000	000	15.000	34.500	15.000	00.FT.
(000120)	000	000	000	000	000	15.000	34.500	15.000	00.FT.
(000121)	000	000	000	000	000	15.000	34.500	15.000	00.FT.
(000122)	000	000	000	000	000	15.000	34.500	15.000	00.FT.
(000123)	000	000	000	000	000	15.000	34.500	15.000	00.FT.
(000124)	000	000	000	000	000	15.000	34.500	15.000	00.FT.
(000125)	000	000	000	000	000	15.000	34.500	15.000	00.FT.
(000126)	000	000	000	000	000	15.000	34.500	15.000	00.FT.
(000127)	000	000	000	000	000	15.000	34.500	15.000	00.FT.
(000128)	000	000	000	000	000	15.000	34.500	15.000	00.FT.
(000129)	000	000	000	000	000	15.000	34.500	15.000	00.FT.
(000130)	000	000	000	000	000	15.000	34.500	15.000	00.FT.
(000131)	000	000	000	000	000	15.000	34.500	15.000	00.FT.
(000132)	000	000	000	000	000	15.000	34.500	15.000	00.FT.
(000133)	000	000	000	000	000	15.000	34.500	15.000	00.FT.
(000134)	000	000	000	000	000	15.000	34.500	15.000	00.FT.
(000135)	000	000	000	000	000	15.000	34.500	15.000	00.FT.
(000136)	000	000	000	000	000	15.000	34.500	15.000	00.FT.
(000137)	000	000	000	000	000	15.000	34.500	15.000	00.FT.
(000138)	000	000	000	000	000	15.000	34.500	15.000	00.FT.
(000139)	000	000	000	000	000	15.000	34.500	15.000	00.FT.
(000140)	000	000	00						

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BOFLAP	SPOONK	ELEVON	REFERENCE INFORMATION
{002104}	0A-208 LARC UPVT 1057 140 A/B 098 +DUMMY STING	.000	16.300	54.920	15.000	SREF 2650.0000 SQ.FT.
{002110}	0A-208 LARC UPVT 1057 140 A/B 098 +DUMMY STING	.000	16.300	54.920	15.000	LINEF 1250.3000 INO-ES
{002105}	0A-208 LARC UPVT 1057 140 A/B 098 +DUMMY STING	.000	-11.700	54.920	-40.000	BREF 936.6800 INO-ES
{002106}	0A-208 LARC UPVT 1057 140 A/B 098	.300				XREF 1076.7000 INO-ES
						YREF .0000 INO-ES
						ZREF 375.0000 INO-ES
						SCALE .0150

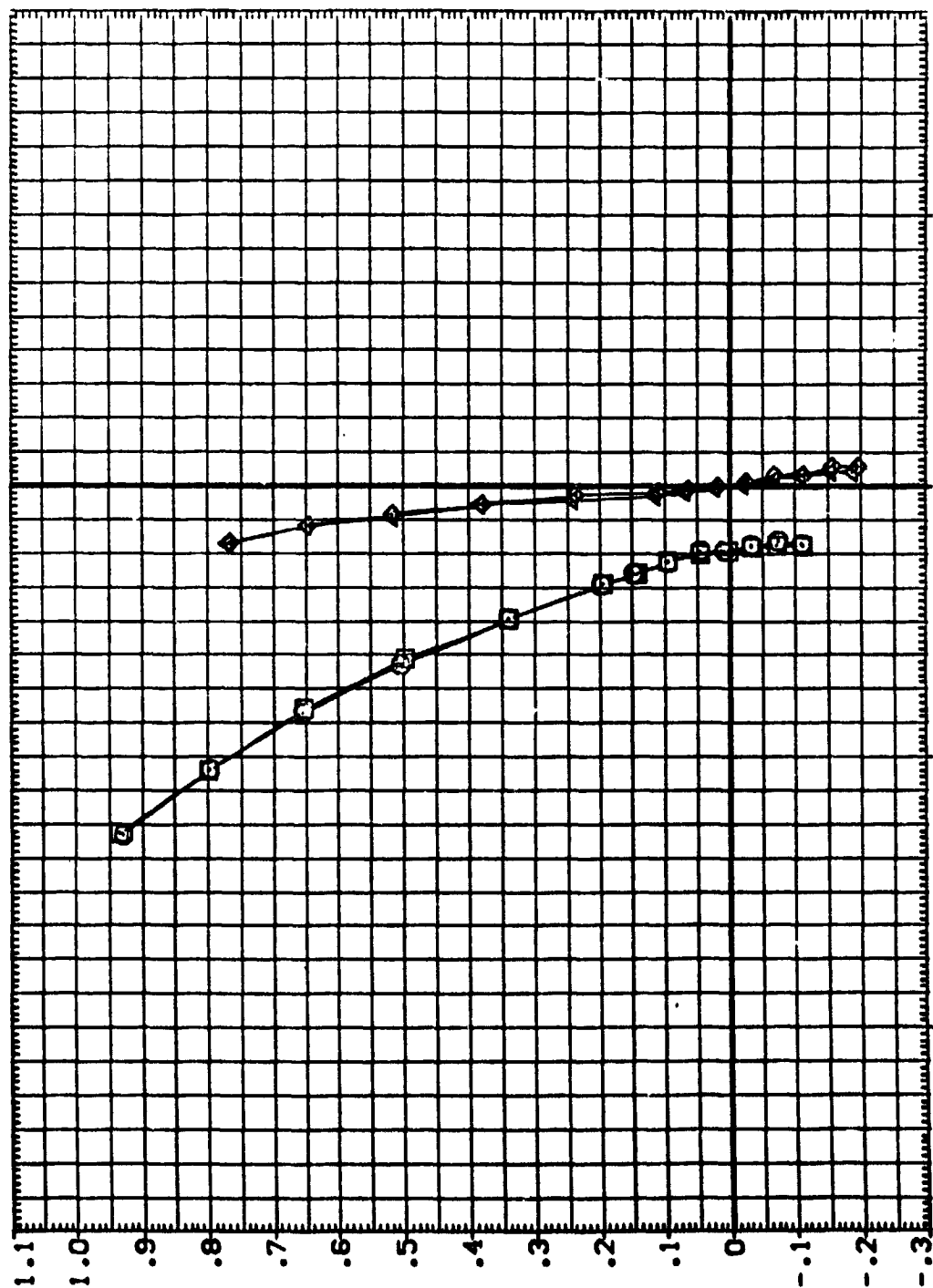


TOTAL PITCH.-MOM. COEFF. (MRP = 65.0 PC BL) CLM +CMVFWD .2

FIG. 6 STING AND NOZZLE TARES

(B)MACH = 3.95

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BD FLAP	SPDBRK	ELEVON	REFERENCE INFORMATION
(002104)	0A-208 LARC UPVT 1097 140 A/B 0/8	.000	15.300	54.920	15.000	SREF 2690.0000 SQ.FT.
(002110)	0A-208 LARC UPVT 1097 140 A/B 0/8	.000	15.300	54.920	15.000	LREF 1200.0000 INCHES
(002105)	0A-208 LARC UPVT 1097 140 A/B 0/8	.000	-11.700	54.920	-40.000	BREF 596.0000 INCHES
(002106)	0A-208 LARC UPVT 1097 140 A/B 0/8	.000	-11.700	54.920	-40.000	XMRP 1076.7000 INCHES
						ZMRP .0000 INCHES
						SCALE .0150



TOTAL PITCH.-MOM. COEFF. (CMRP = 65.0 PC BL) CLM + CMVFDW : CMTFWD

FIG. 6 STING AND NOZZLE TARES

(C)MACH = 4.63



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BOFLAP	SPOBRK	ELEVON	REFERENCE INFORMATION
{002104}	0A-208 LARC UPVT 1057 140 A/B 038 +DUMMY STING	.000	16.300	54.520	15.000	SREF 2650.0000 SQ.FT.
{002110}	0A-208 LARC UPVT 1057 140 A/B 038 +DUMMY STING	.000	16.300	54.520	15.000	LREF 1250.3000 INCHES
{002105}	0A-208 LARC UPVT 1057 140 A/B 038 +DUMMY STING	.000	-11.700	54.520	-40.000	BREF 936.0500 INCHES
{002106}	0A-208 LARC UPVT 1057 140 A/B 038 +DUMMY STING	.000	-11.700	54.520	-40.000	XMRP 1076.7000 INCHES
						ZMRP .0000 INCHES
						SCALE .0150

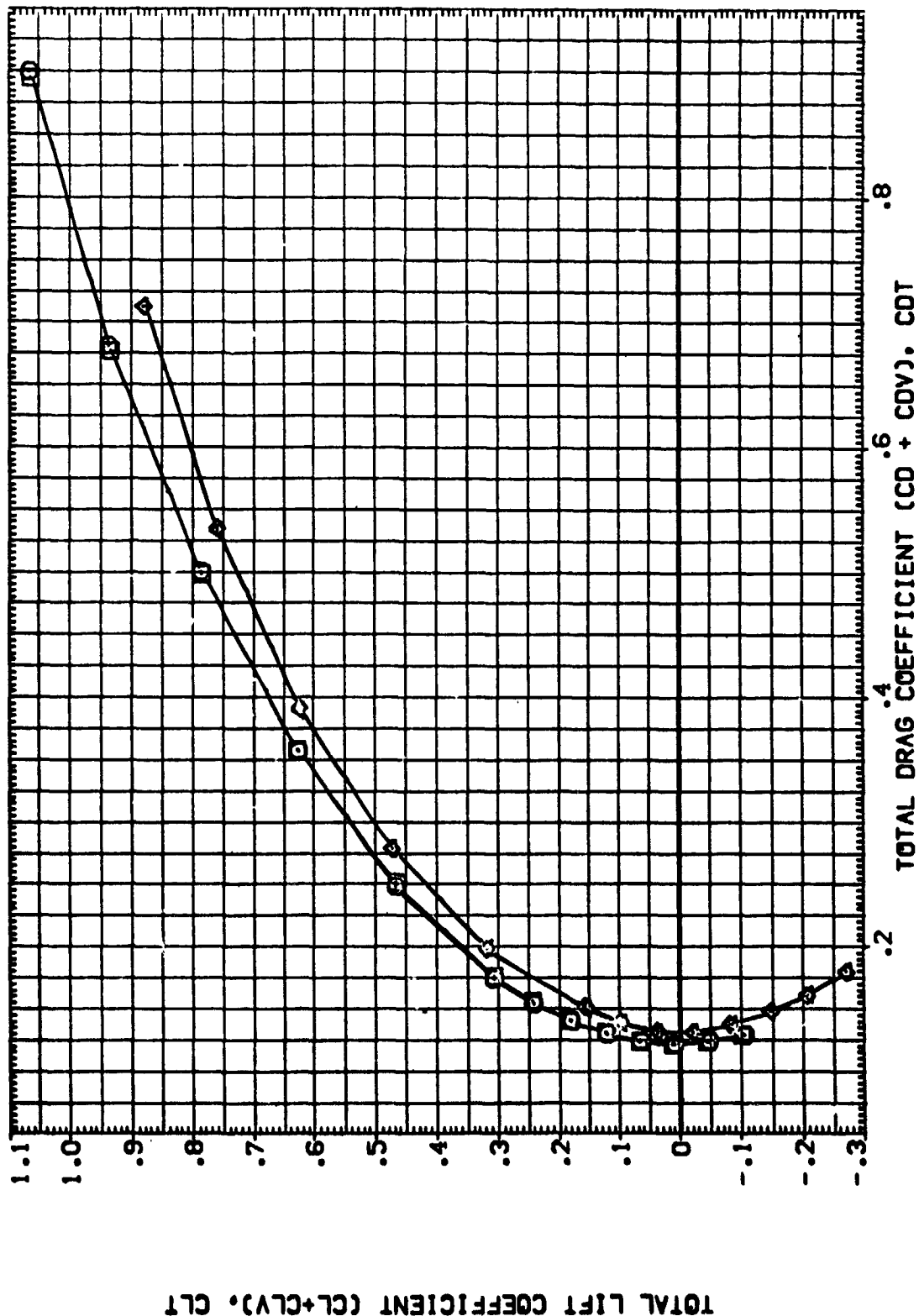


FIG. 6 STING AND NOZZLE TARES

(A)MACH = 2.50

DATA SET SYMBOL		CONFIGURATION DESCRIPTION				BETA		BOFLAP		SPDRK		ELEVON		REFERENCE INFORMATION			
(002104)	Q	DA-208	LARC	UPVT	1097	140	A/B	098	0.000	16.300	54.920	15.000	SREF	2690.0000	50.000	INCHES	
(002110)	X	DA-208	LARC	UPVT	1097	140	A/B	098	0.000	16.300	54.920	15.000	LREF	1290.0000	10.000	INCHES	
(002105)	X	DA-208	LARC	UPVT	1097	140	A/B	098	0.000	16.300	54.920	15.000	BREF	936.0000	10.000	INCHES	
(002106)	X	DA-208	LARC	UPVT	1097	140	A/B	098	0.000	16.300	54.920	15.000	YREF	1076.7000	10.000	INCHES	
													ZREF	375.0000	10.000	INCHES	
													SCALE	.0150		SCALE	

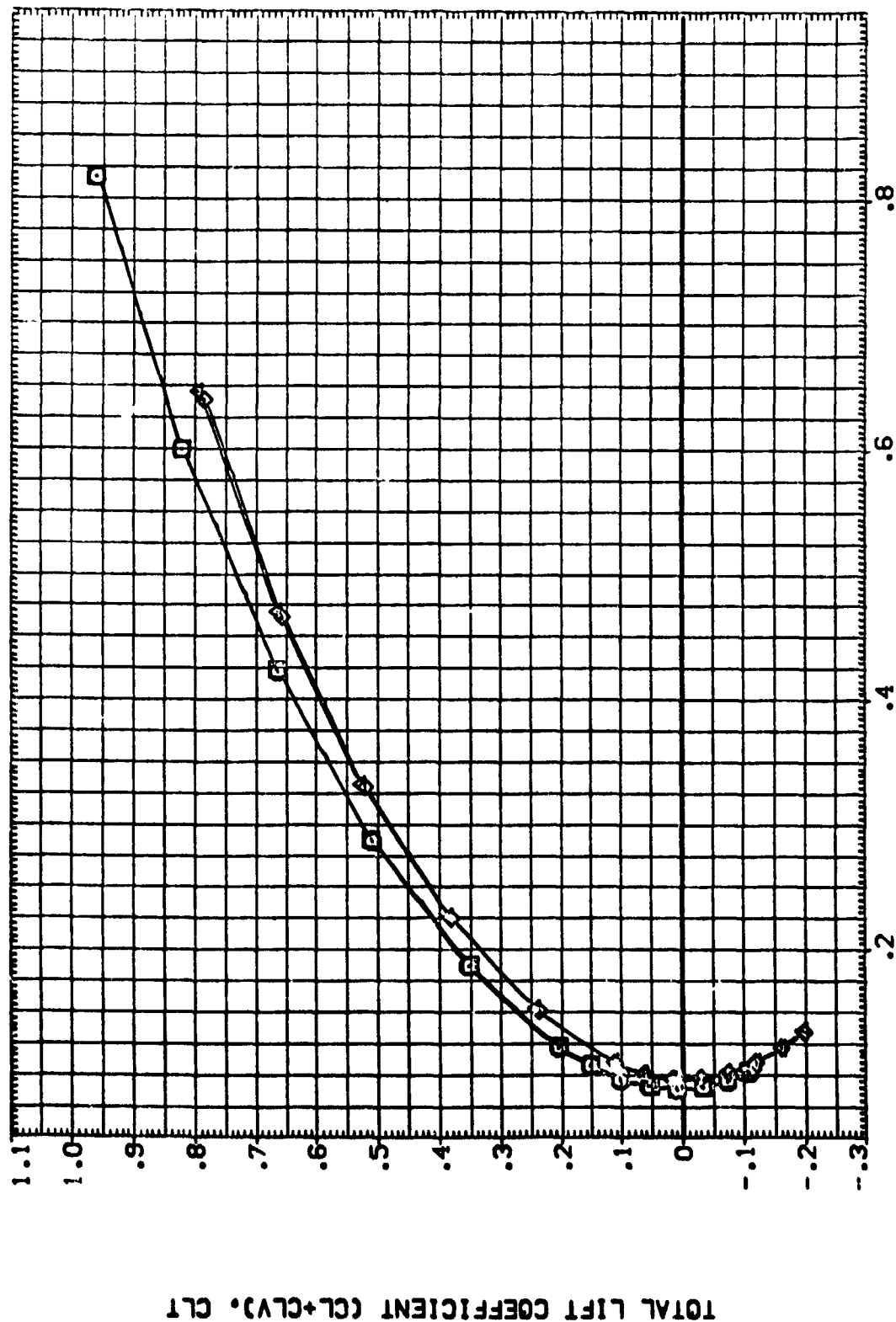


FIG. 6 STING AND NOZZLE TARES

(B)MACH = 3.95



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BOFLAP	SPOBRK	ELEVON	REFERENCE INFORMATION
(002104)	DA-208 LARC UPVT 1057 140 A/B 078 +DUMMY STING	.000	16.300	54.920	15.000	SREF 2690.0000 SQ.FT.
(002110)	DA-208 LARC UPVT 1057 140 A/B 078 +DUMMY STING	.000	16.300	54.920	15.000	LREF 1290.3000 INCHES
(002105)	DA-208 LARC UPVT 1057 140 A/B 078 +DUMMY STING	.000	-11.700	54.920	-40.000	SREF 936.6800 INCHES
(002106)	DA-208 LARC UPVT 1057 140 A/B 078 +DUMMY STING	.000	-11.700	54.920	-40.000	XTRP 1076.7000 INCHES
						YTRP .0000 INCHES
						ZTRP 375.0000 INCHES
						SCALE .0150

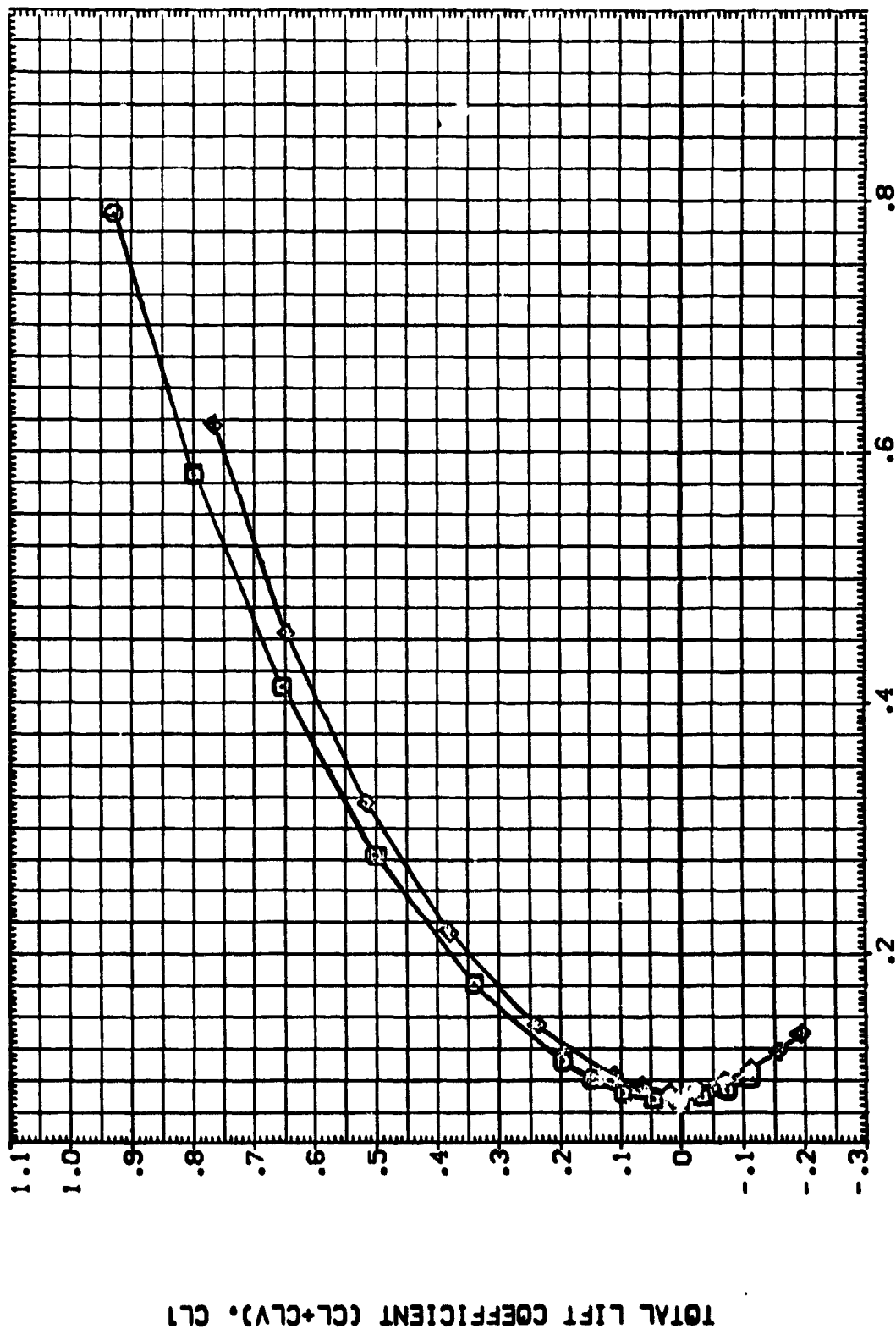


FIG. 6 STING AND NOZZLE TARES

(C)MACH = 4.63

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	SDFLAP	SPOBRK	ELEVON	REFERENCE INFORMATION
(602104)	GA-208 LARC UPVT 1057 140 A/B 038	.000	16.300	54.920	15.000	SREF 2690.0000 SQ.FT.
(602110)	GA-208 LARC UPVT 1057 140 A/B 038	.000	16.300	54.920	15.000	LREF 1290.3000 INCHES
(602105)	GA-208 LARC UPVT 1057 140 A/B 038	.000	-11.700	54.920	-40.000	BREF 936.6300 INCHES
(602106)	GA-208 LARC UPVT 1057 140 A/B 038	.000	-11.700	54.920	-40.000	YREF 1076.7000 INCHES
						YREF .0000 INCHES
						ZREF 375.0000 INCHES
						SCALE .0150

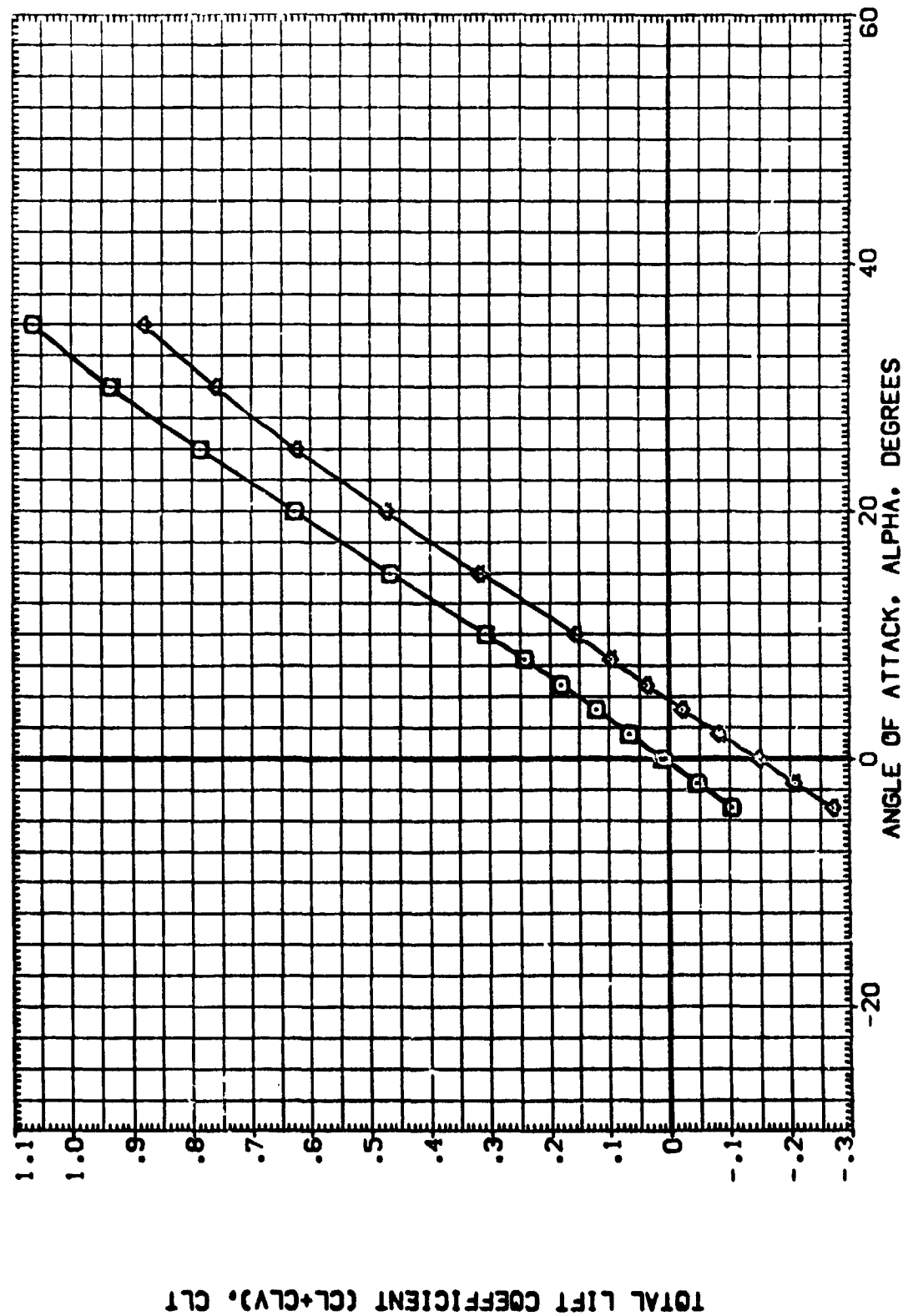


FIG. 6 STING AND NOZZLE TARES

(MACH = 2.50)

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BOFLAP	SPOBRK	ELEVON	REFERENCE INFORMATION
{002104}	BA-208 LARC UPAT 1057 140 A/B 5/8	.000	16.300	54.920	15.000	SREF 2630.0000 SQ.FT.
{002110}	BA-208 LARC UPAT 1057 140 A/B 5/8	.000	16.300	54.920	15.000	LREF 1230.3000 INO-ES
{002105}	BA-208 LARC UPAT 1057 140 A/B 5/8	.000	-11.700	54.920	-40.000	BREF 936.E300 INO-ES
{002106}	BA-208 LARC UPAT 1057 140 A/B 5/8	.000	-11.700	54.920	-40.000	XREF 1076.7000 INO-ES
						YREF .0000 INO-ES
						ZREF 375.0000 INO-ES
						SCALE .0150 SCALE

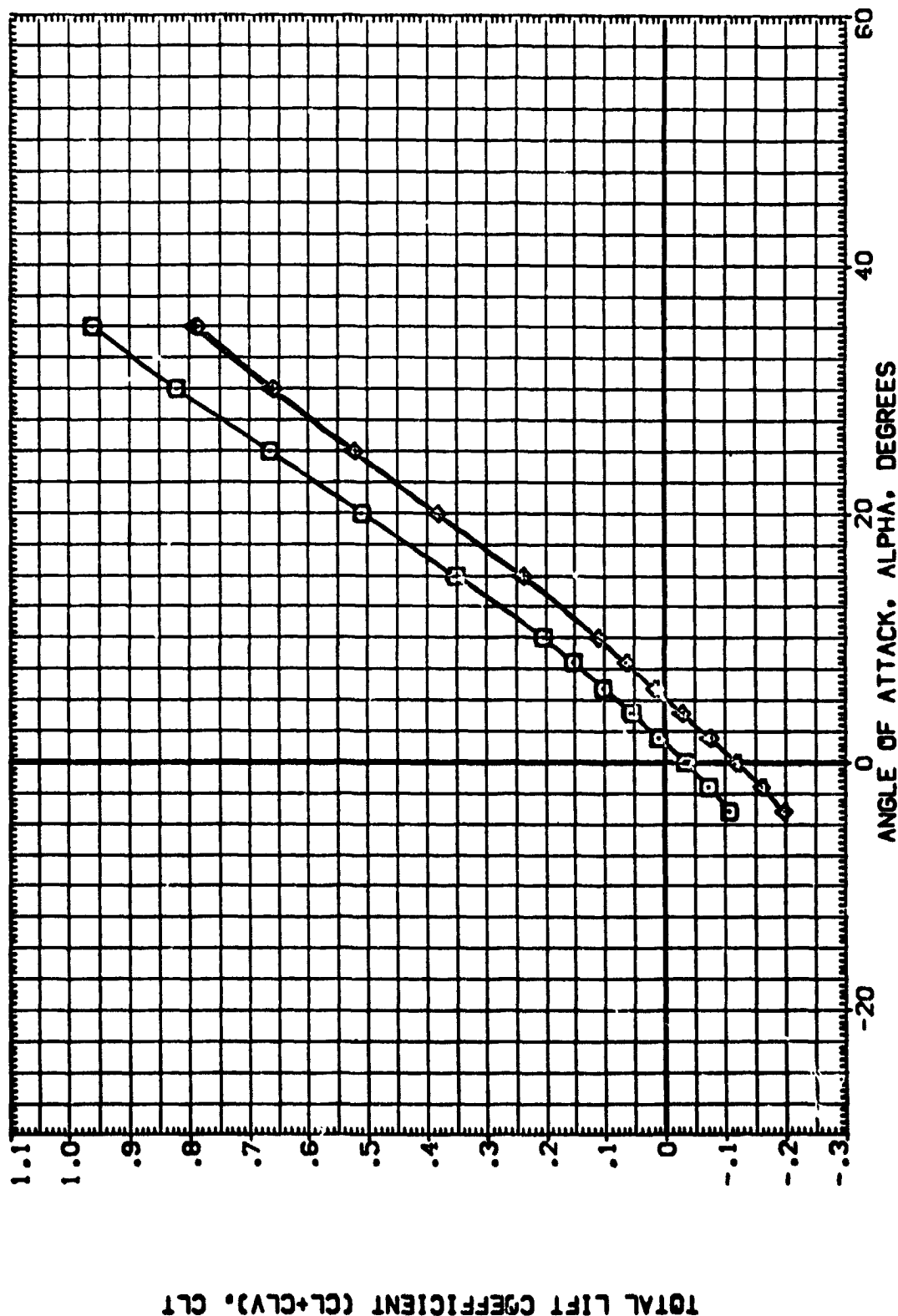


FIG. 6 STING AND NOZZLE TARES

(8)MACH = 3.95

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BD FLAP	SPOBRK	ELEVON	REFERENCE INFORMATION
(002104)	GA-203 LARC UPVT 1087 140 A/B 053	.000	15.300	54.920	15.000	SREF 2690.0000 SQ.FT.
(002110)	GA-203 LARC UPVT 1087 140 A/B 053	.000	15.300	54.920	15.000	LREF 1290.0000 INCHES
(002105)	GA-203 LARC UPVT 1037 140 A/B 053	.000	-11.700	54.920	-40.000	BREF 923.0000 INCHES
(002106)	GA-203 LARC UPVT 1087 140 A/B 053	.000	-11.700	54.920	-40.000	XMRP 1073.0000 INCHES
						ZMRP .0100 INCHES
						SCALE 375.0000 INCHES
						SCALE .0150

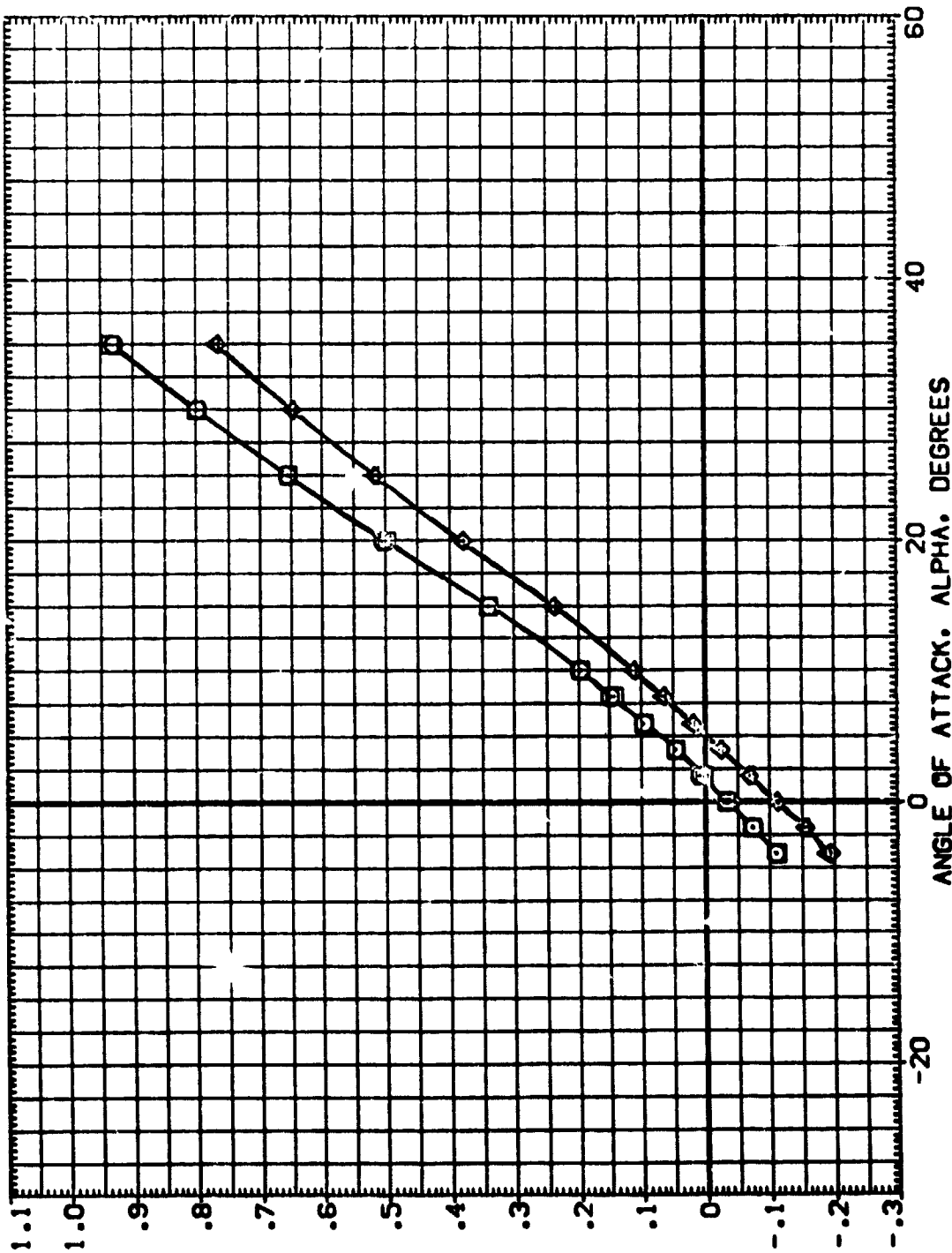


FIG. 6 STING AND NOZZLE TARES

(C)MACH = 4.63



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BDFLAP	SPDRK	ELEVON	REFERENCE INFORMATION
(002104)	GA-208 LARC UPVT 1087 140 A/B DBB	.000	16.300	54.520	19.000	SREF 2650.0000 SQ.FT.
(002110)	GA-208 LARC UPVT 1087 140 A/B DBB	.000	16.300	54.520	15.000	LREF 1250.3000 INO-ES
(002105)	GA-208 LARC UPVT 1087 140 A/B DBB	.000	-11.700	54.520	-40.000	BREF 935.6000 INO-ES
(002106)	GA-208 LARC UPVT 1087 140 A/B DBB	.000	-11.700	54.520	-40.000	XREF 1076.7000 INO-ES
						YREF 375.0000 INO-ES
						ZREF 375.0000 INO-ES
						SCALE .0150

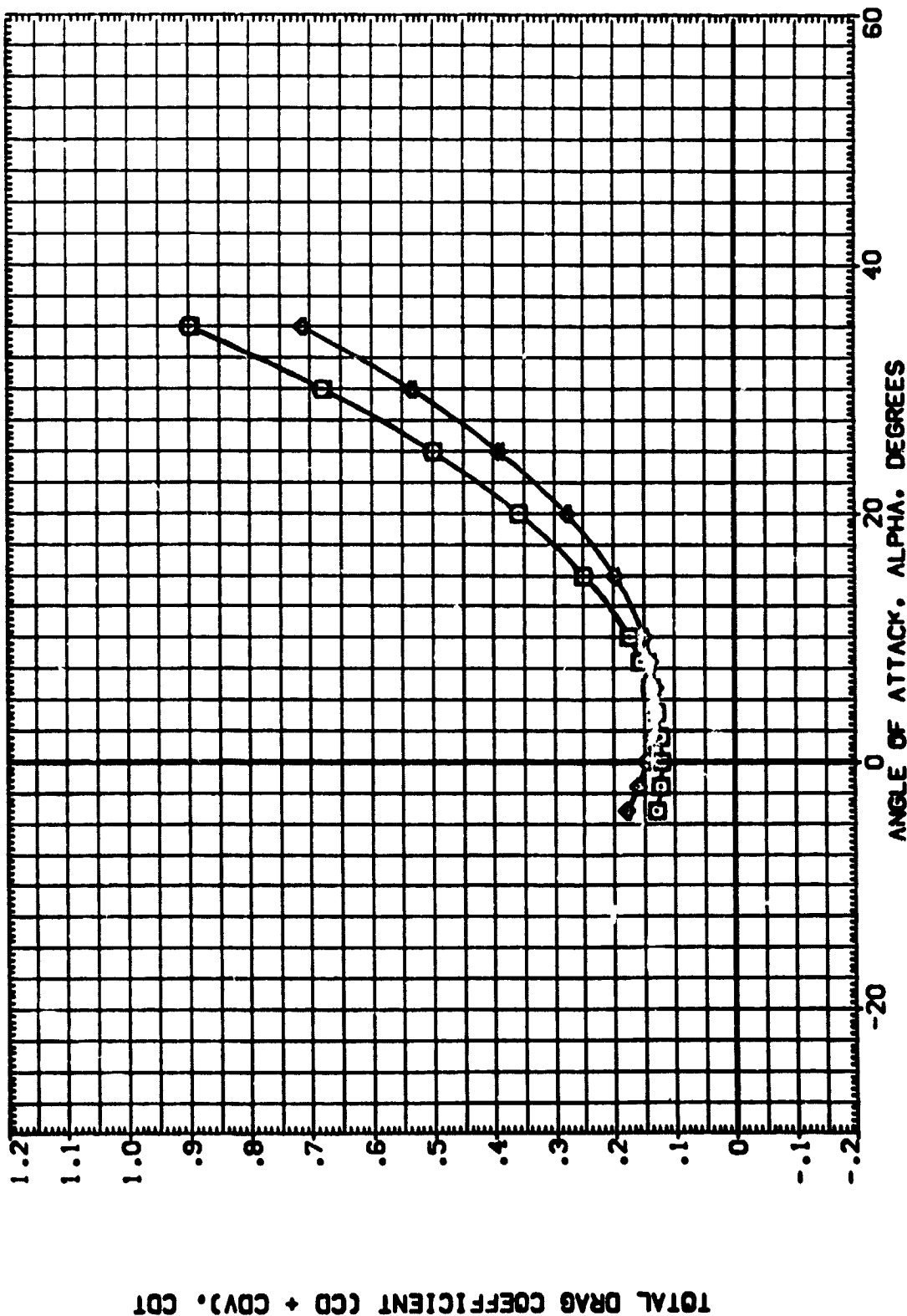


FIG. 6 STING AND NOZZLE TARES

(MACH = 2.50)

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BOFLAP	SPDRK	ELEVON	REFERENCE INFORMATION
{002104}	0A-208 LARC UPVT 1037 140 A/B 0/8	.000	16.300	54.720	15.000	SREF 2630.0000 SQ.FT.
{002110}	0A-208 LARC UPVT 1037 140 A/B 0/8	.000	16.300	54.520	15.000	LREF 1230.3000 INCHES
{002105}	0A-203 LARC UPVT 1037 140 A/B 0/8	.000	-11.700	54.520	-40.000	BREF 936.8000 INCHES
{002106}	0A-203 LARC UPVT 1037 140 A/B 0/8	.000	-11.700	54.520	-40.000	XREF 1073.7000 INCHES
						YREF .0000 INCHES
						ZREF 375.0000 INCHES
						SCALE .0150 SCALE

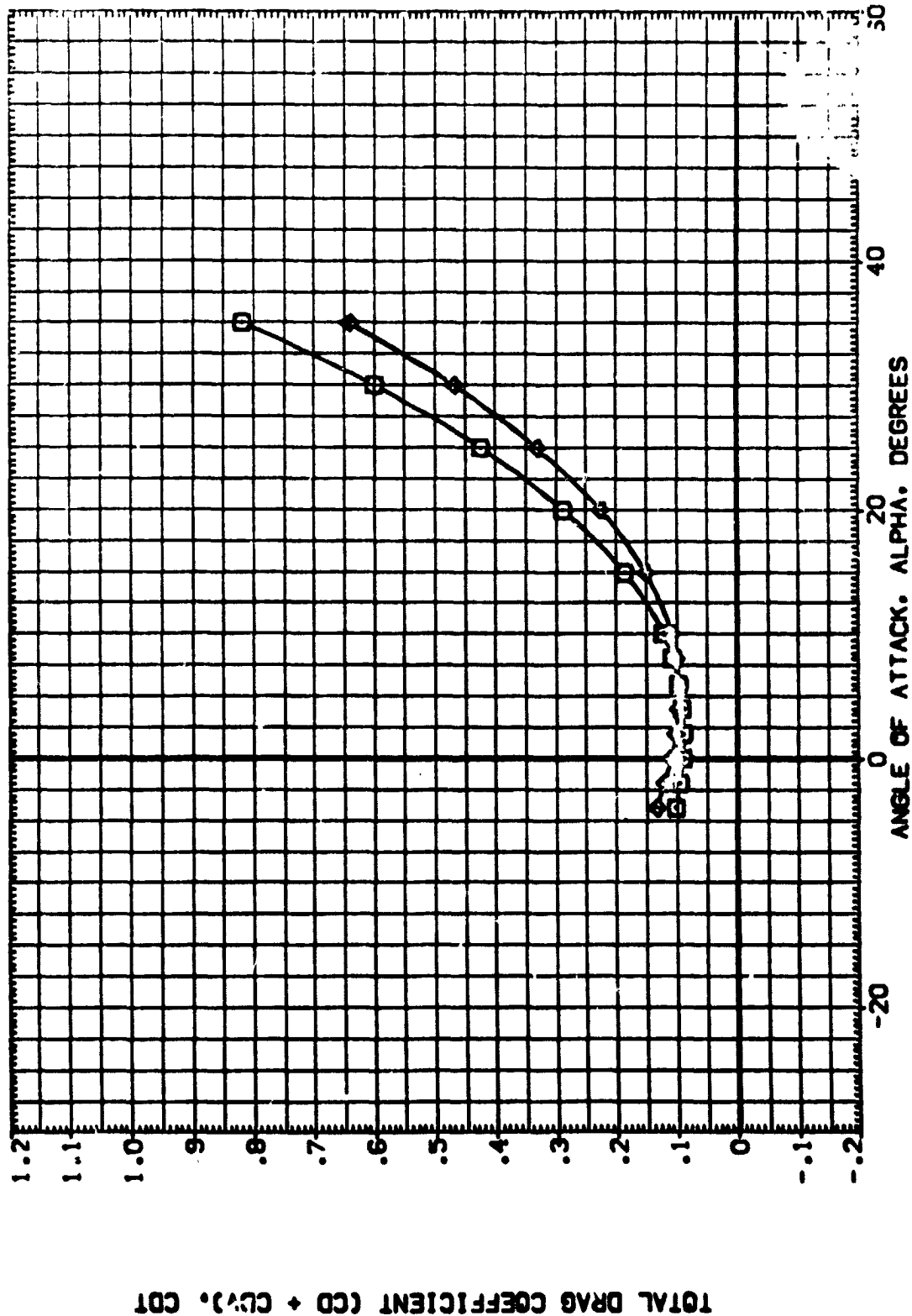


FIG. 6 STING AND NOZZLE TARES

(B)MACH = 3.95

DATA SET SYMBOL	CONF IDURATION	DESCRIPTION	BETA	REFLAP	SPOBCK	ELEVON	REFERENCE INFORMATION
{002104}	0A-208	LARC UPVT 1057 140 A/B 058	.000	16.300	54.520	15.000	SREF 2050.0000 SO.FT.
{002110}	0A-208	LARC UPVT 1057 140 A/B 058	.000	16.300	54.520	15.000	LREF 1250.3000 INO-ES
{002105}	0A-208	LARC UPVT 1057 140 A/B 058	.000	-11.700	54.520	-40.000	BREF 5056.5000 INO-ES
{002106}	0A-208	LARC UPVT 1057 140 A/B 058	.000	-11.700	54.520	-40.000	YREF 1076.7000 INO-ES
							ZREF 375.0000 INO-ES
							SCALE .0150 SCALE

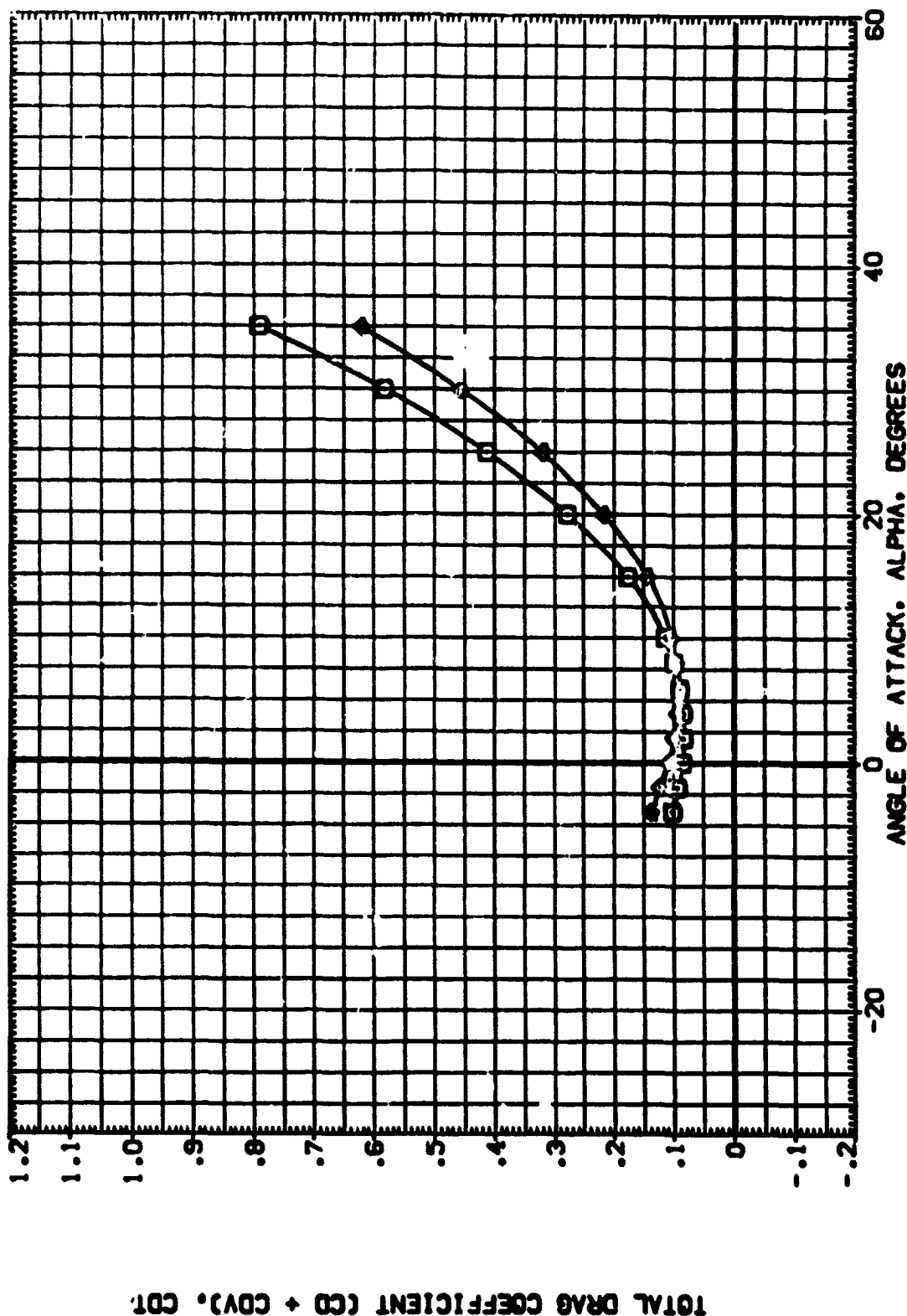


FIG. 6 STING AND NOZZLE TARES

(C)MACH = 4.63

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BOFLAP	SPOBRK	ELEVON	REFERENCE INFORMATION
{002104}	GA-208 LARC UPVT 1037 140 A/B DBB +QUIN STING	.000	16.300	54.520	15.000	SREF 2690.0000 50. FT.
{002110}	GA-208 LARC UPVT 1037 140 A/B DBB +QUIN STING	.000	16.300	54.520	15.000	LREF 1290.3000 INCHES
{002105}	GA-208 LARC UPVT 1037 140 A/B DBB +QUIN STING	.000	-11.700	54.520	-40.000	BREF 936.6300 INCHES
{002106}	GA-208 LARC UPVT 1037 140 A/B DBB +QUIN STING	.000	-11.700	54.520	-40.000	XMRP 1076.7000 INCHES
						YMRP .0000 INCHES
						ZMRP .0150 INCHES
						SCALE

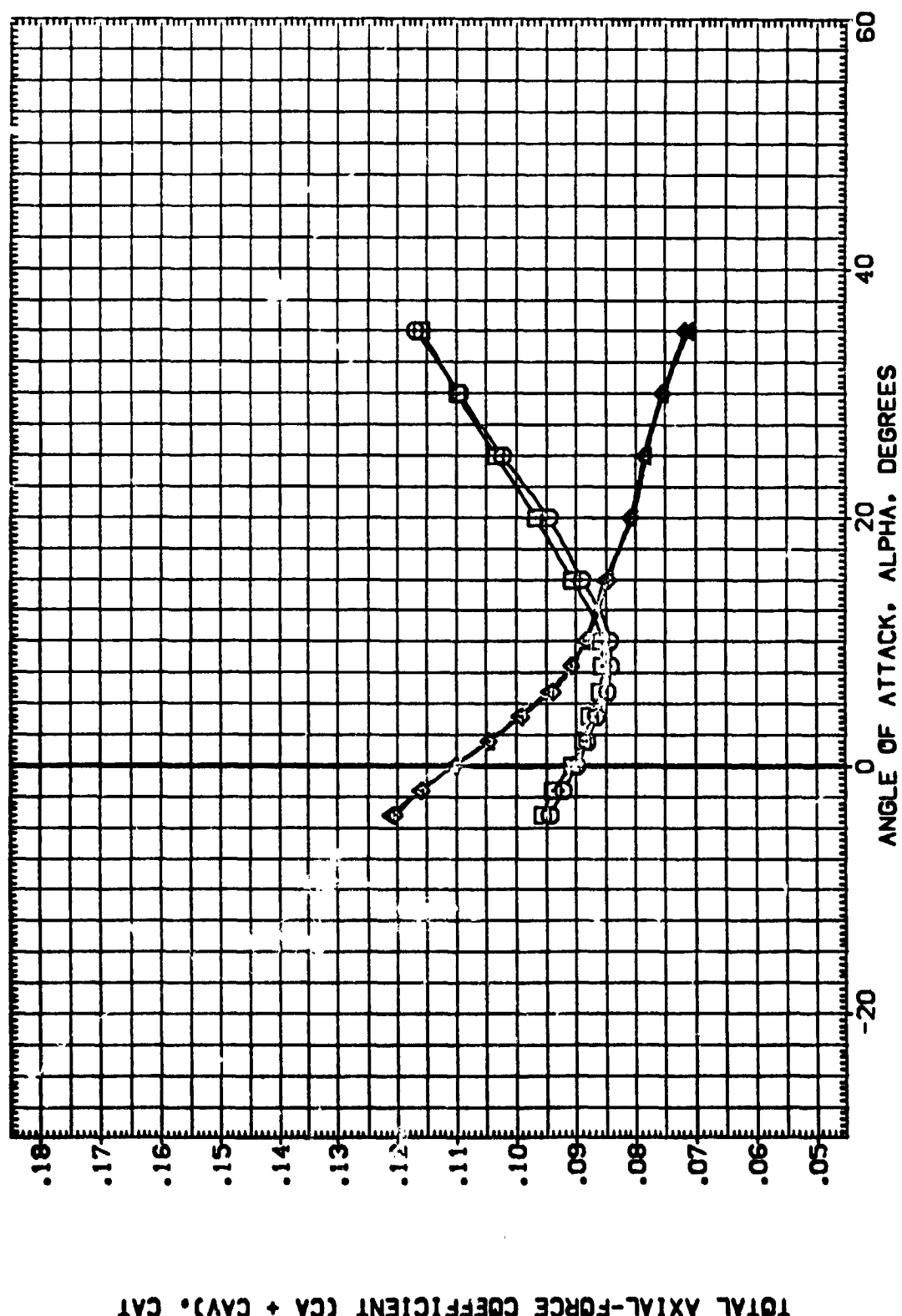
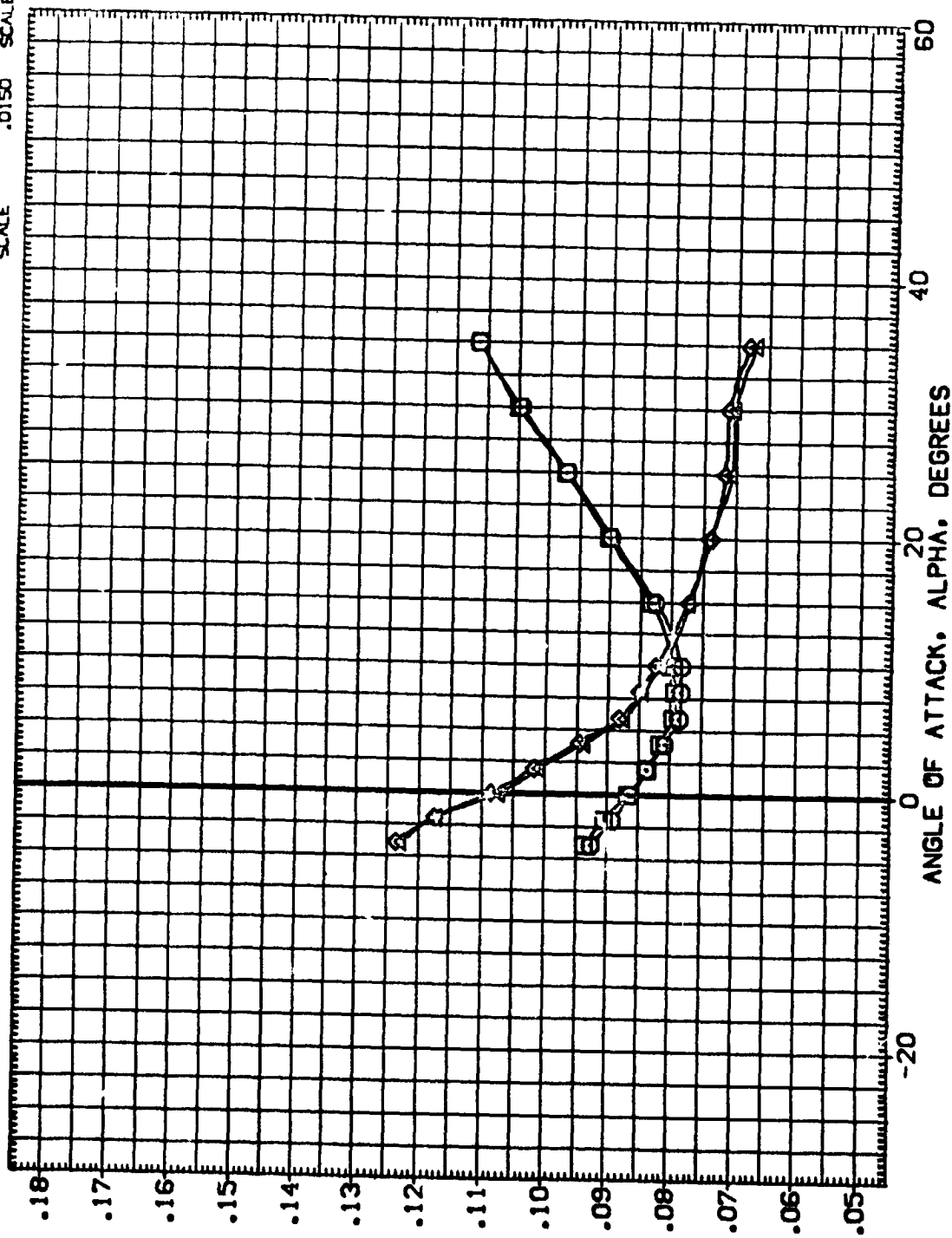


FIG. 6 STING AND NOZZLE TARES

(B)MACH = 3.95

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BOFLAP	SPDRBK	ELEVON	REFERENCE INFORMATION
{002104}	0A-208 LARC UPVT 1057 140 A/B 028	.000	16.300	54.920	15.000	SREF 2650.0000 SO.FT.
{002110}	0A-208 LARC UPVT 1057 140 A/B 028	.000	16.300	54.920	15.000	LREF 1250.3000 INC-ES
{002105}	0A-208 LARC UPVT 1057 140 A/B 028	.000	-11.700	54.920	-40.000	BREF 936.6800 INC-ES
{002106}	0A-208 LARC UPVT 1057 140 A/B 328	.000	-11.700	54.920	-40.000	XMRP 1076.7000 INC-ES
						YMRP .0000 INC-ES
						ZMRP 375.0000 INC-ES
						SCALE .0150 SCALE



TOTAL AXIAL-FORCE COEFFICIENT (CA + CAV), CAT

FIG. 6 STING AND NOZZLE TARES

(C)MACH = 4.63



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BD FLAP	SPORX	ELEVON	REFERENCE INFORMATION
(L02101)	DA-208 LARC UPVT 1057 140 A/B DBB +DUMMY STING	.000	-11.700	54.920	.000	SREF 2690.0000 50.00
(L02102)	DA-208 LARC UPVT 1057 140 A/B DBB +DUMMY STING	.000	-11.700	54.920	.000	LREF 1250.0000 100.00
(L02103)	DA-208 LARC UPVT 1057 140 A/B DBB +DUMMY STING	.000	16.300	54.920	.000	SREF 1076.0000 100.00
(L02104)	DA-208 LARC UPVT 1057 140 A/B DBB +DUMMY STING	.000	16.300	54.920	15.000	XREF 1076.0000 100.00
(L02105)	DA-208 LARC UPVT 1057 140 A/B DBB +DUMMY STING	.000	-11.700	54.920	-40.000	YREF 375.0000 100.00
						SCALE .0150 INCHES

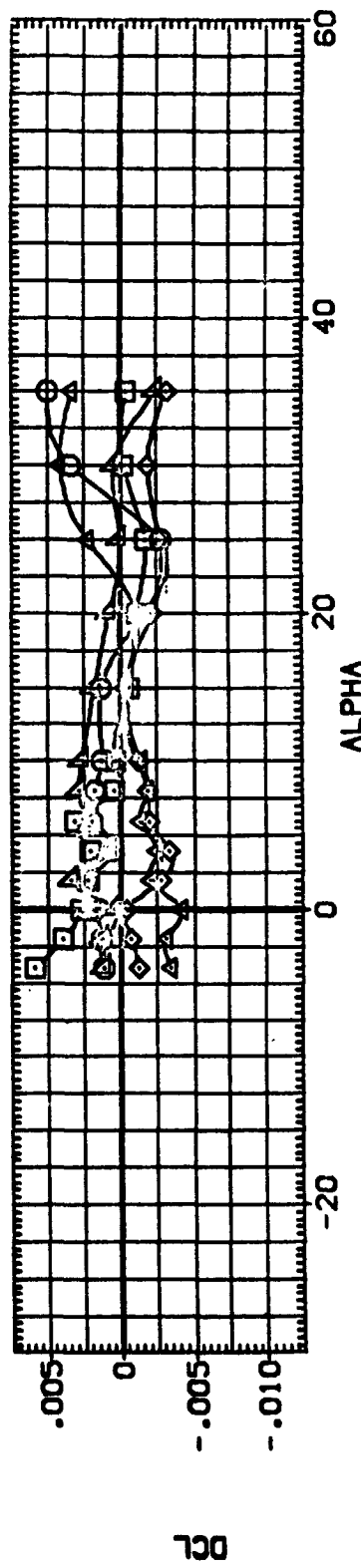
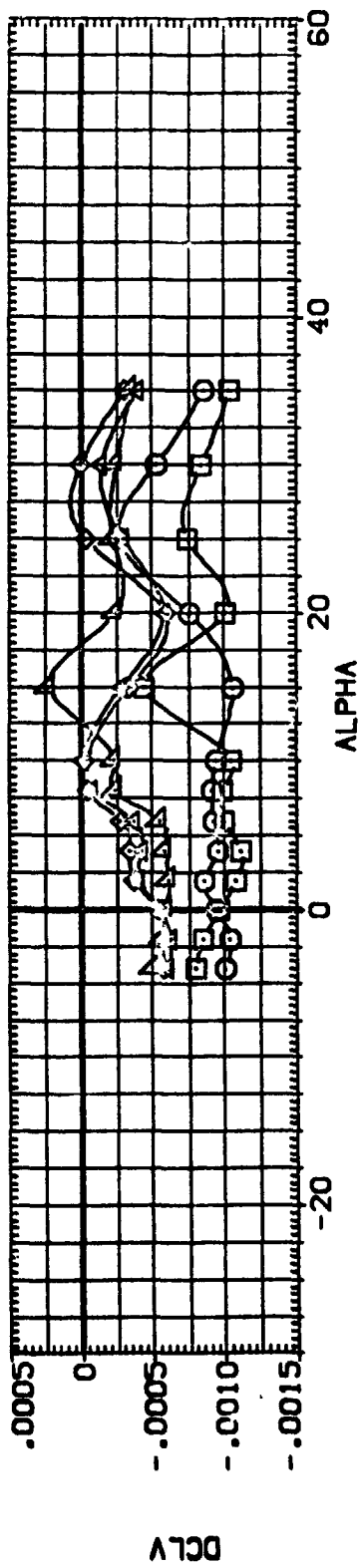
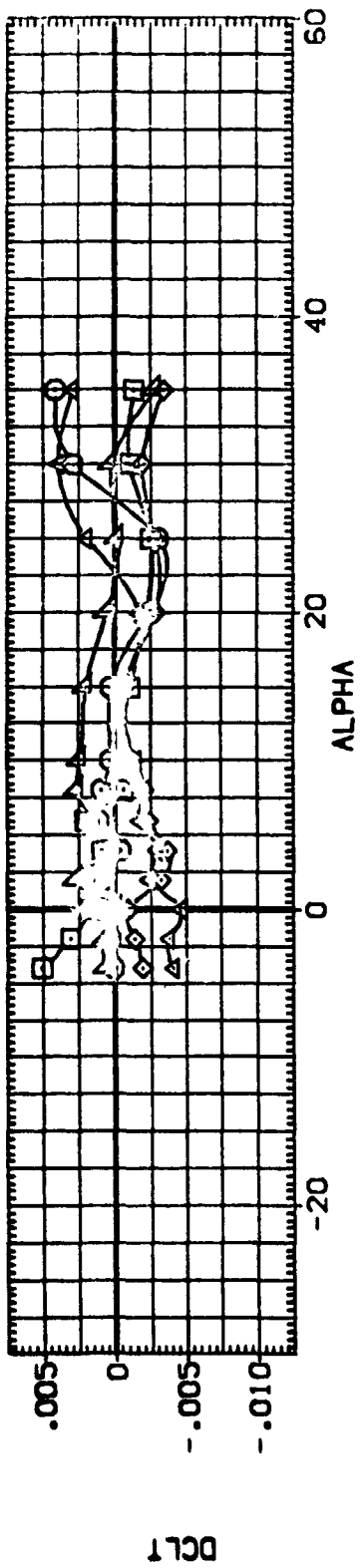


FIG. 6 STING AND NOZZLE TARES
(A)MACH = 2.50

DATA SET SYMBOL CONFIGURATION DESCRIPTION REFERENCE INFORMATION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BOFLAP	SPDBK	ELEVON	REF	INCHES
(L02101)	GA-208 LARC UPVT 1097 140 A/B DB + DUMMY STING	.000	-11.700	54.920	.000	SREF	2690.0000
(L02102)	GA-208 LARC UPVT 1097 140 A/B DB + DUMMY STING	3.000	-11.700	54.920	.000	LREF	1250.3700
(L02103)	GA-208 LARC UPVT 1097 140 A/B DB + DUMMY STING	.000	16.300	54.920	15.000	BREF	935.0000
(L02104)	GA-208 LARC UPVT 1097 140 A/B DB + DUMMY STING	.000	16.300	54.920	15.000	XREF	1076.7000
(L02105)	GA-208 LARC UPVT 1097 140 A/B DB + DUMMY STING	.000	-11.700	54.920	-40.000	YREF	375.0000
						ZREF	375.0000
						SCALE	.0150

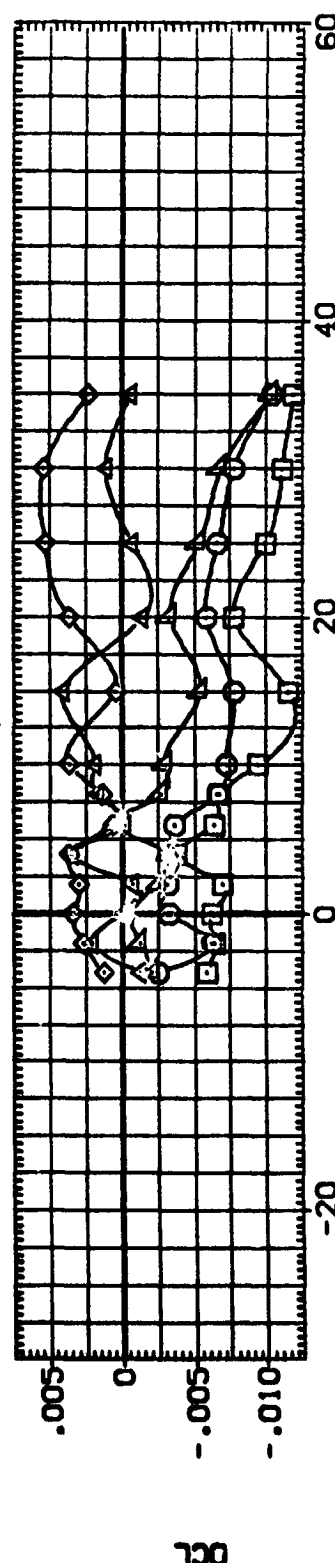
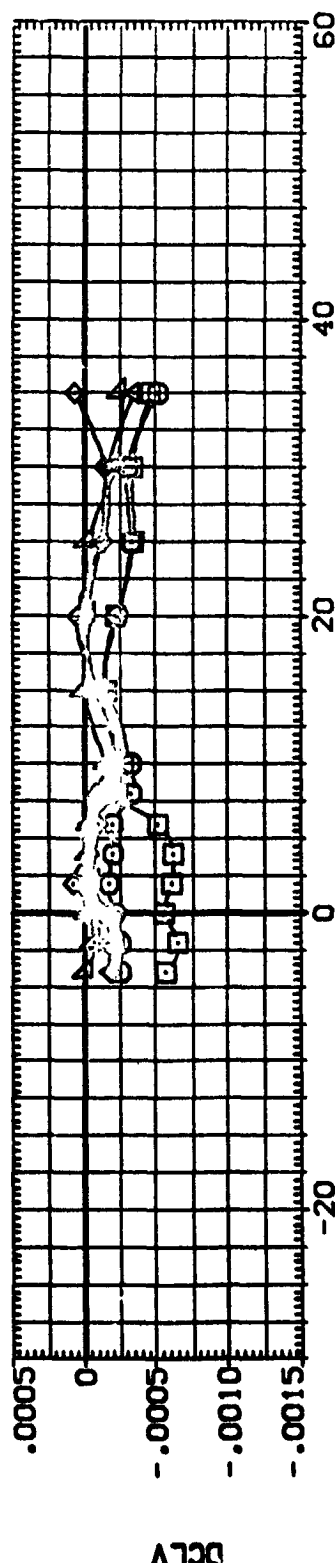
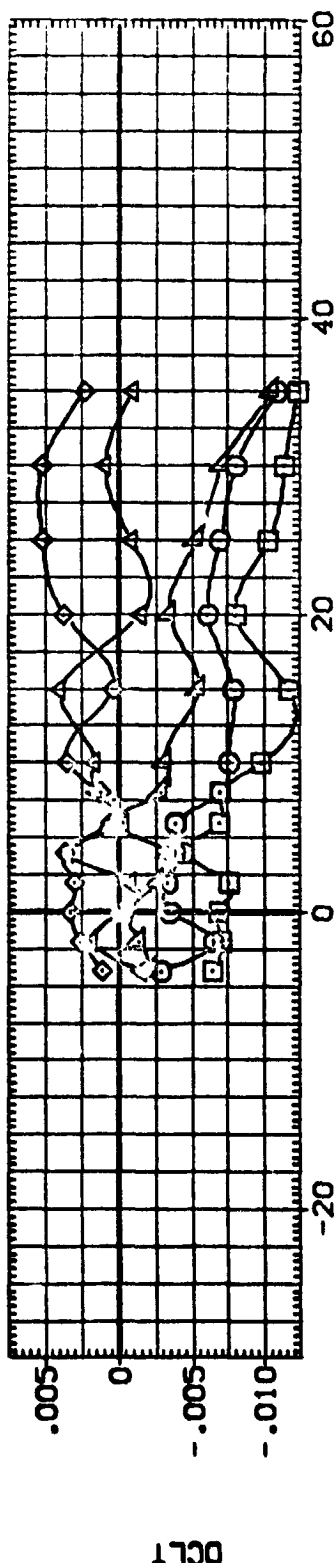


FIG. 6 STING AND NOZZLE TARES
(B)MACH = 3.95

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BOFLAP	SPDRK	ELEVON	REFERENCE INFORMATION	SO.FT.
{L02101}	GA-208 LARC UPVT 1057 140 A/B 058 +DUMMY STING	.000	-11.700	54.920	.000	SREF	2690.0000
{L02102}	GA-208 LARC UPVT 1057 140 A/B 058 +DUMMY STING	.000	-11.700	54.920	.000	LREF	1290.3000
{L02103}	GA-208 LARC UPVT 1057 140 A/B 058 +DUMMY STING	.000	16.300	54.920	.000	BREF	936.6000
{L02104}	GA-208 LARC UPVT 1057 140 A/B 058 +DUMMY STING	.000	16.300	54.920	15.000	XREF	1076.7000
{L02105}	GA-208 LARC UPVT 1057 140 A/B 058 +DUMMY STING	.000	-11.700	54.920	-40.000	YREF	.0000
						ZREF	.0000
						SCALE	.0150

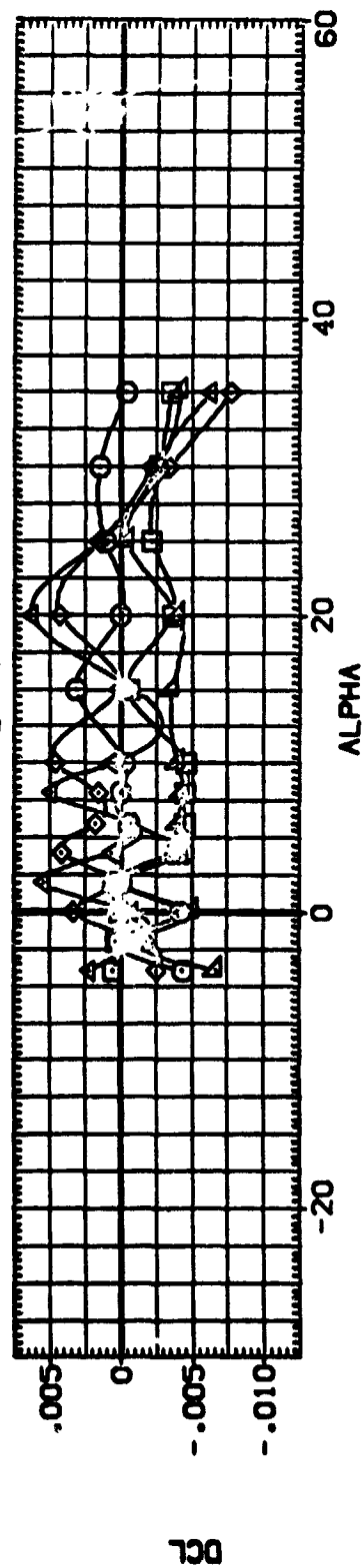
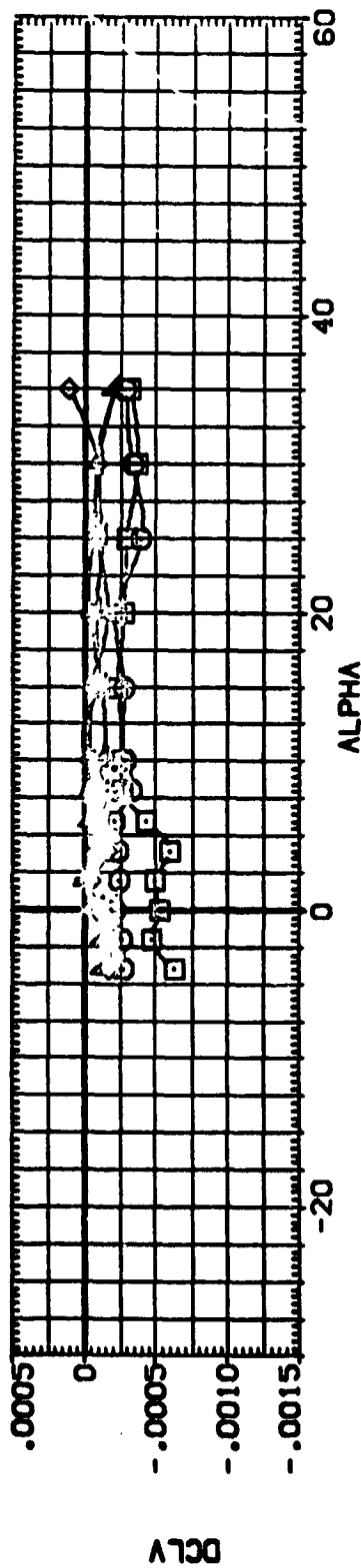
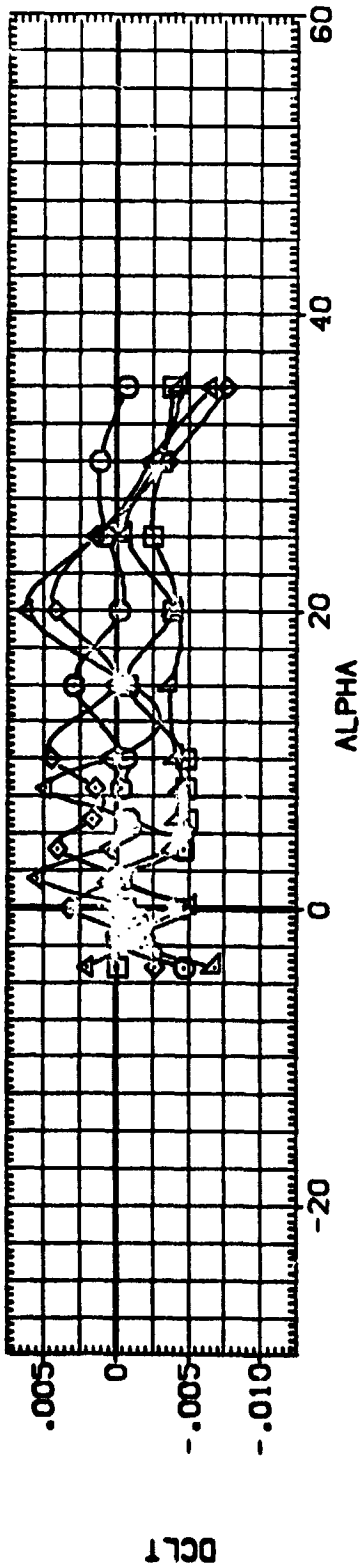


FIG. 6 STING AND NOZZLE TARES
[C]MACH = 4.63

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BOFLAP	SPDBRK	ELEVON	REFERENCE INFORMATION
{L02101}	0A-208 LARC UPVT 1057 140 A/B 058 +DUPHY STING	.000	-11.700	54.920	.000	SREF 2650.0000 SO.FT.
{L02102}	0A-208 LARC UPVT 1057 140 A/B 058 +DUPHY STING	3.000	-11.700	54.920	.000	LREF 1200.3000 INCHES
{L02103}	0A-208 LARC UPVT 1057 140 A/B 058 +DUPHY STING	.000	16.300	54.920	.000	SREF 935.6000 INCHES
{L02104}	0A-208 LARC UPVT 1057 140 A/B 058 +DUPHY STING	.000	16.300	54.920	15.000	XREF 1076.7000 INCHES
{L02105}	0A-208 LARC UPVT 1057 140 A/B 058 +DUPHY STING	.000	-11.700	54.920	-40.000	ZREF .0000 INCHES
						SCALE .0150 SCALE

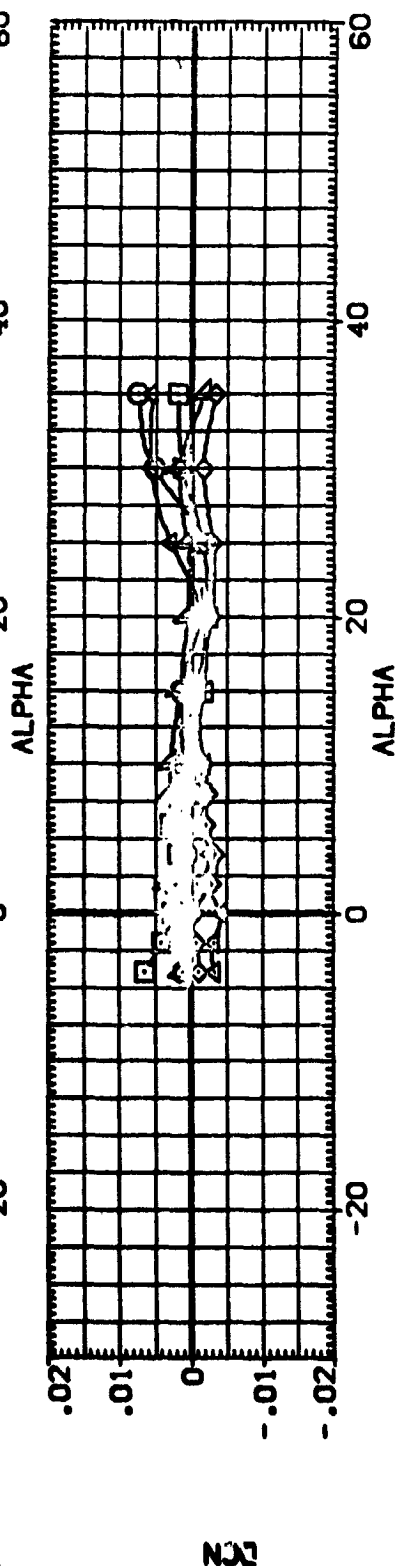
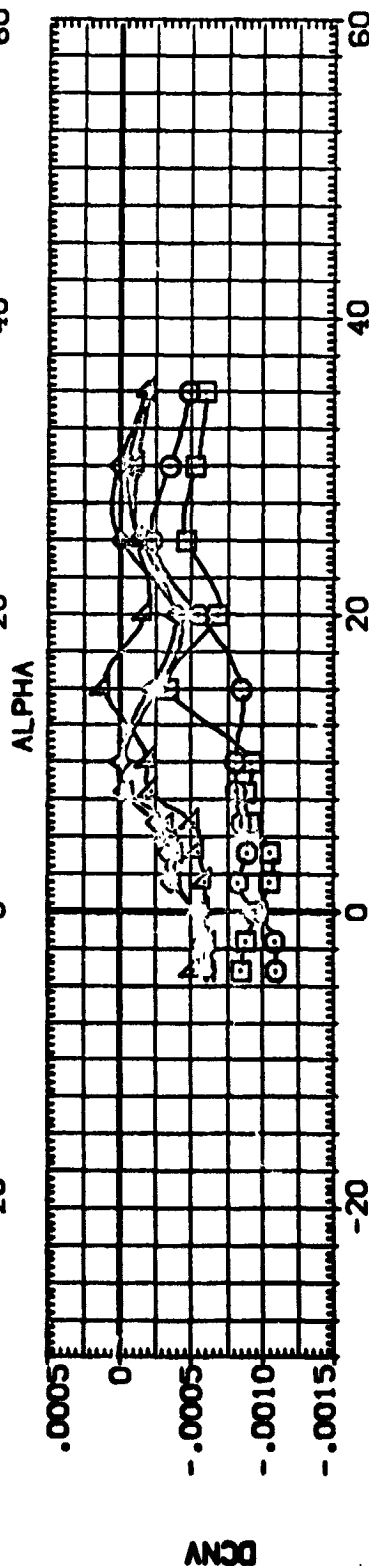
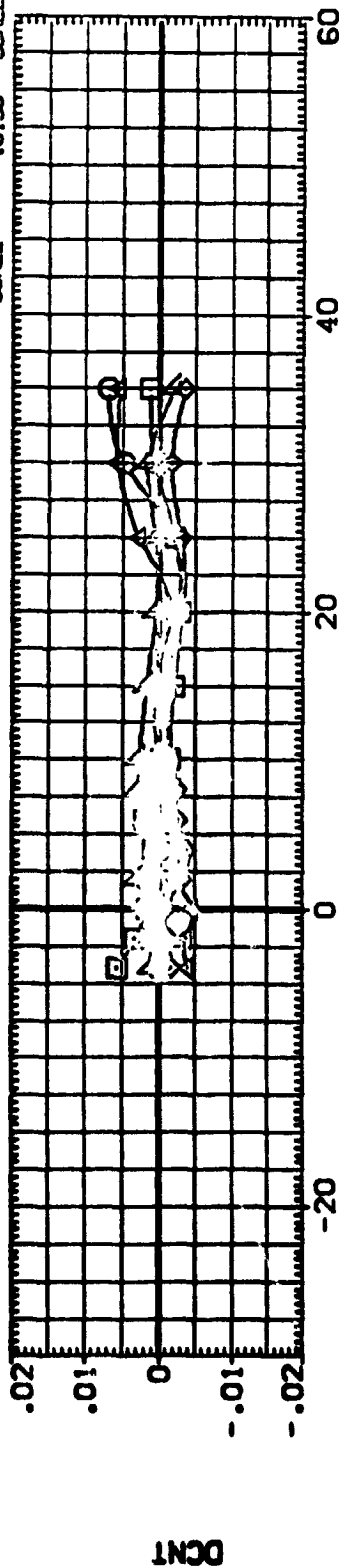


FIG. 6 STING AND NOZZLE TARES

(A)MACH = 2.50



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BOFLAP	SPOBRK	ELEVON	REFERENCE INFORMATION
(L02101)	BA-208 LARC UPVT 1057 140 A/B DBB +DUMMY STING	.000	-11.700	54.920	.000	SREF 2690.0000 SQ.FT.
(L02102)	BA-208 LARC UPVT 1057 140 A/B DBB +DUMMY STING	3.000	-11.700	54.920	.000	LREF 1290.3000 INCHES
(L02103)	BA-208 LARC UPVT 1057 140 A/B DBB +DUMMY STING	.000	16.300	54.920	.000	BREF 936.6900 INCHES
(L02104)	BA-208 LARC UPVT 1057 140 A/B DBB +DUMMY STING	.000	16.300	54.920	15.000	XREF 1076.7000 INCHES
(L02105)	BA-208 LARC UPVT 1057 140 A/B DBB +DUMMY STING	.000	-11.700	54.920	-40.000	YREF 375.0000 INCHES
						ZREF .0150 SCALE

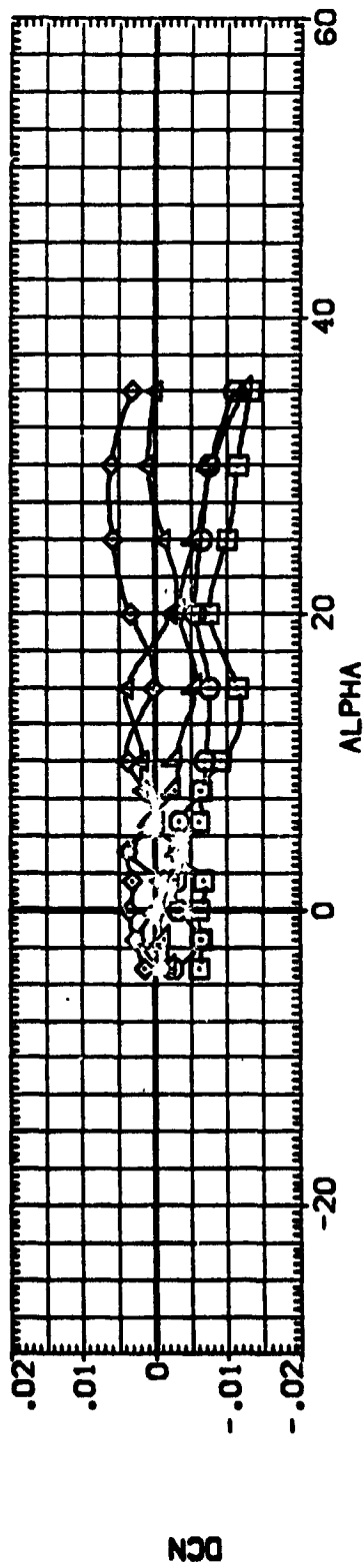
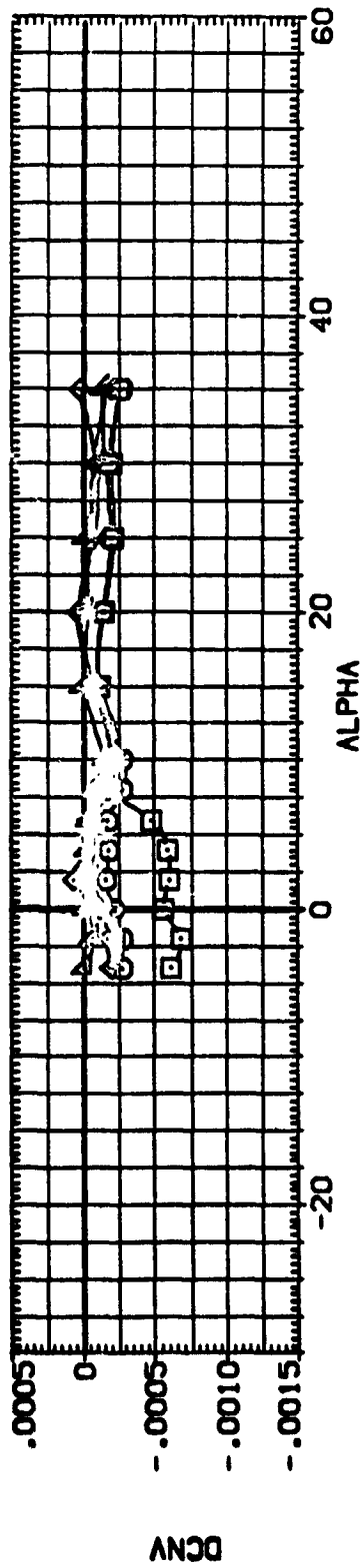
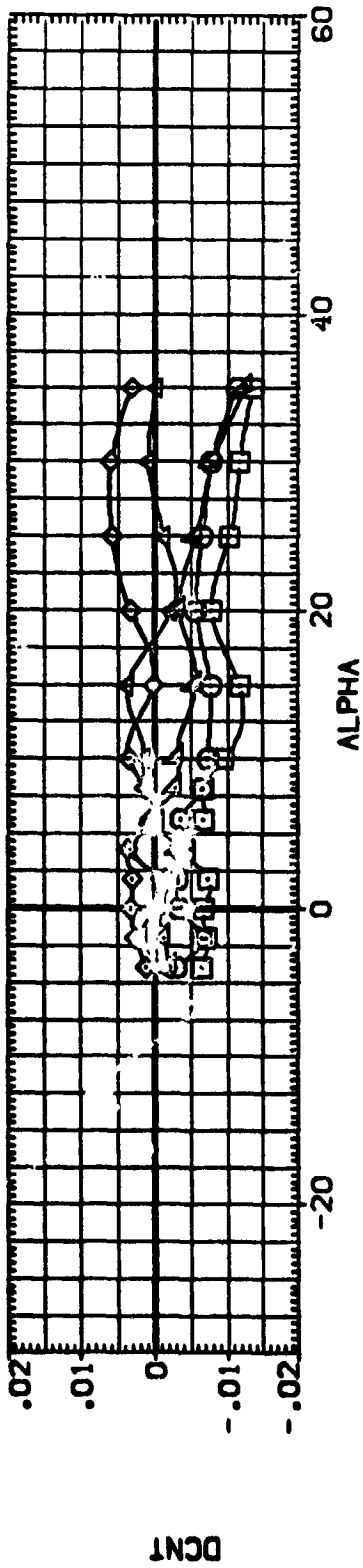


FIG. 6 STING AND NOZZLE TARES
(B)MACH = 3.95

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BDLAP	SPOBRK	ELEVON	REFERENCE INFORMATION
(L02101)	BA-208 LARC UPVT 1057 140 A/B 058 +DUMMY STING	.000	-11.700	54.920	.000	SREF 2690.0000 SQ.FT.
(L02102)	BA-208 LARC UPVT 1057 140 A/B 058 +DUMMY STING	.000	-11.700	54.920	.000	LREF 1290.3000 INCHES
(L02103)	BA-208 LARC UPVT 1057 140 A/B 058 +DUMMY STING	.000	16.300	54.920	.000	BREF 936.6500 INCHES
(L02104)	BA-208 LARC UPVT 1057 140 A/B 058 +DUMMY STING	.000	16.300	54.920	15.000	XMRP 1076.7000 INCHES
(L02105)	BA-208 LARC UPVT 1057 140 A/B 058 +DUMMY STING	.000	-11.700	54.920	-40.000	YMRP .0000 INCHES
						ZMRP 375.0000 INCHES
						SCALE .0150

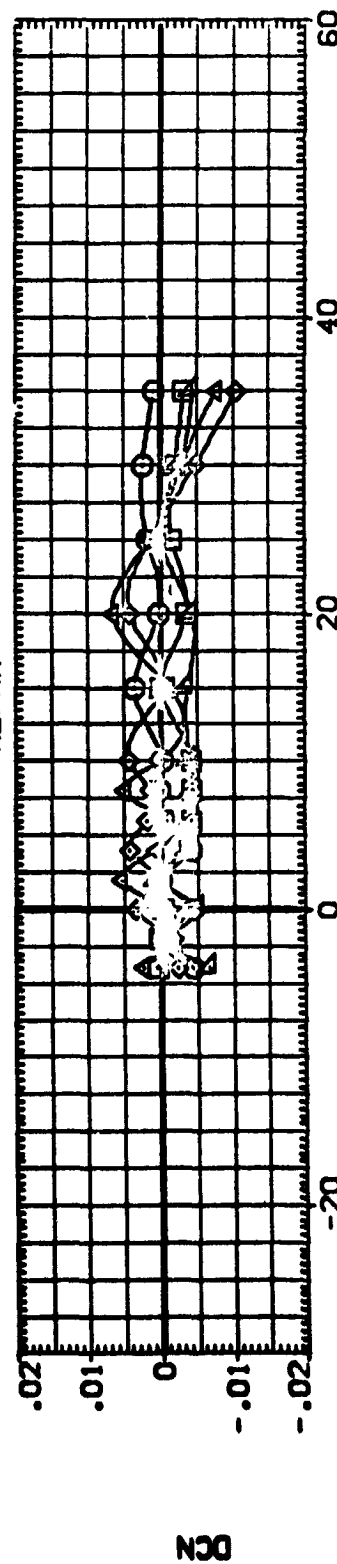
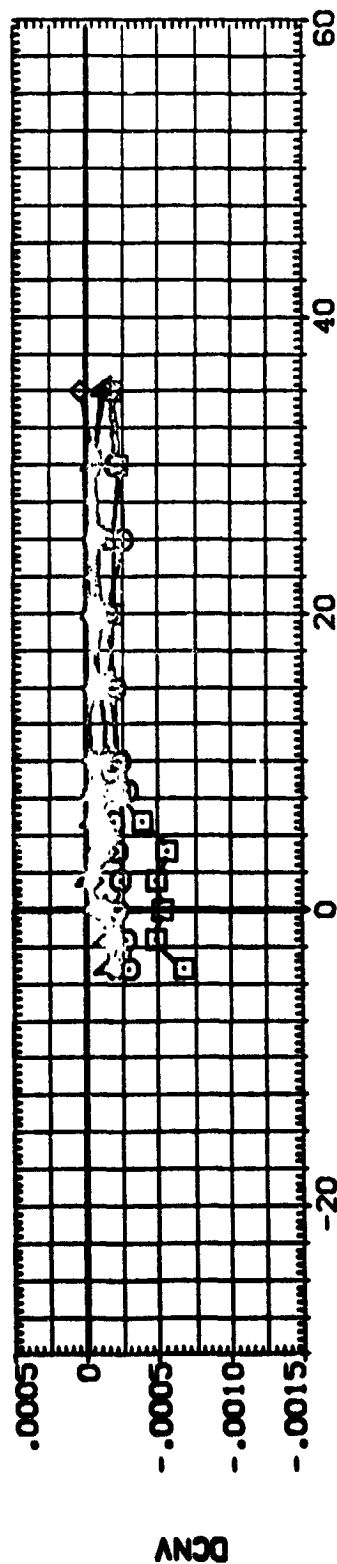
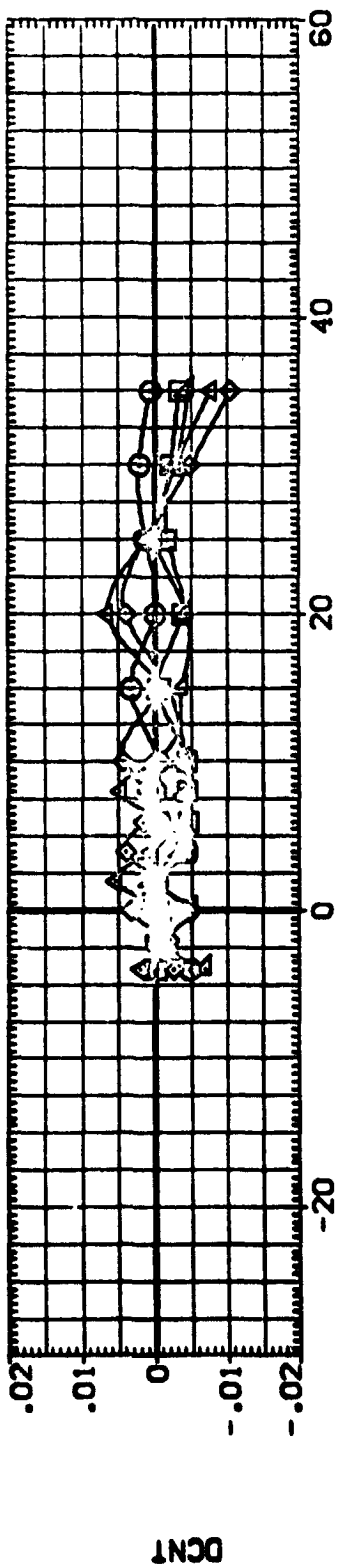


FIG. 6 STING AND NOZZLE TARES

(C)MACH = 4.63



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BOFLAP	SPORBK	ELEVON	REFERENCE INFORMATION
[P02101]	DA-208 LARC UPVT 1087 140 A/B DBB +DUMMY STING	.000	-11.700	54.520	.000	SREF 2650.0000 50.000
[P02102]	DA-208 LARC UPVT 1087 140 A/B DBB +DUMMY STING	3.000	-11.700	54.520	.000	LREF 1290.3000 100.000
[P02103]	DA-208 LARC UPVT 1087 140 A/B DBB +DUMMY STING	.000	16.300	54.520	.000	BREF 923.6000 100.000
[P02104]	DA-208 LARC UPVT 1087 140 A/B DBB +DUMMY STING	.000	16.300	54.520	15.000	VRFP 1076.7000 100.000
[P02105]	DA-208 LARC UPVT 1087 140 A/B DBB +DUMMY STING	.000	-11.700	54.520	-40.000	VRFP .0000 100.000
						SCALE .0150

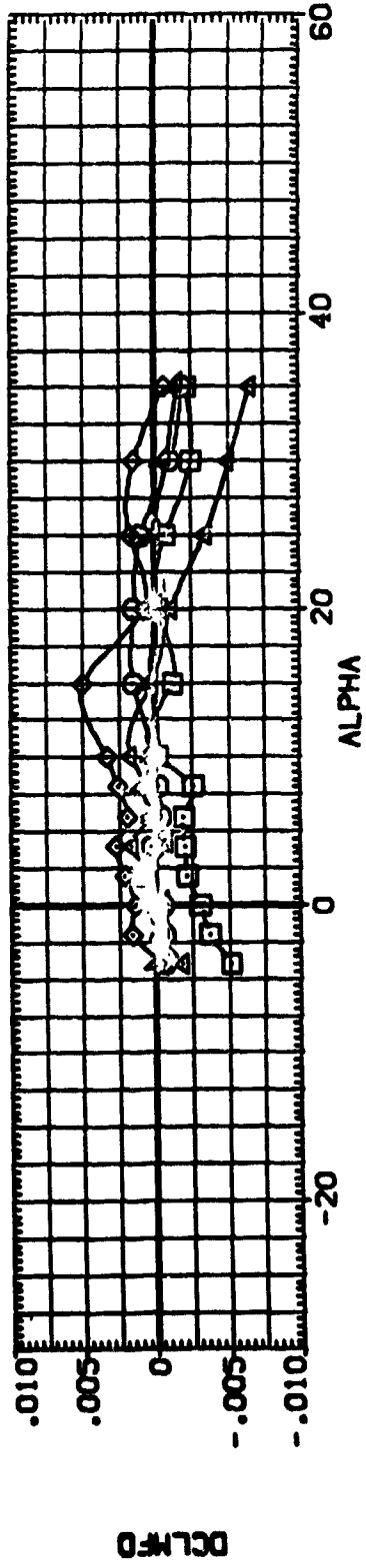
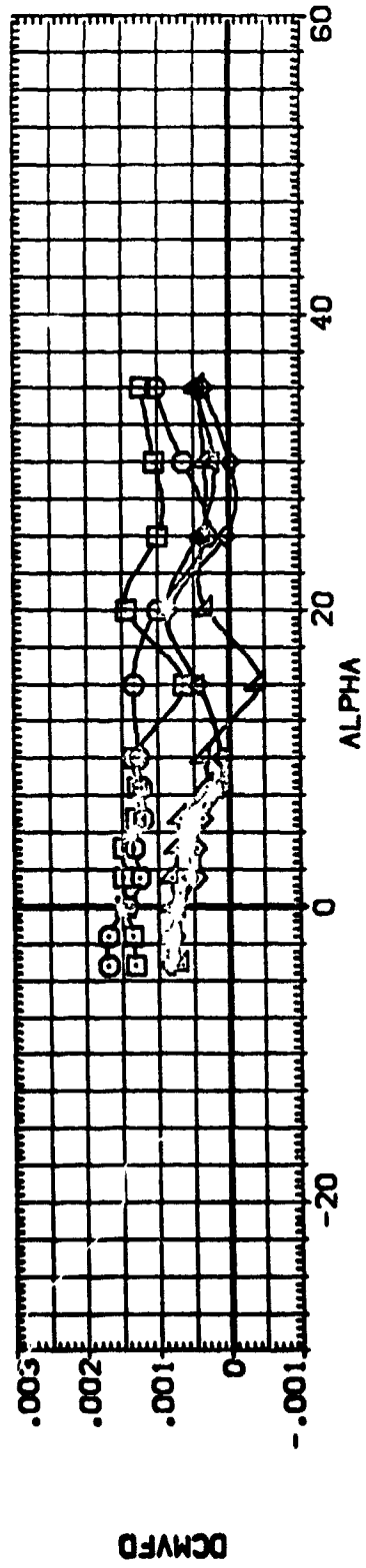
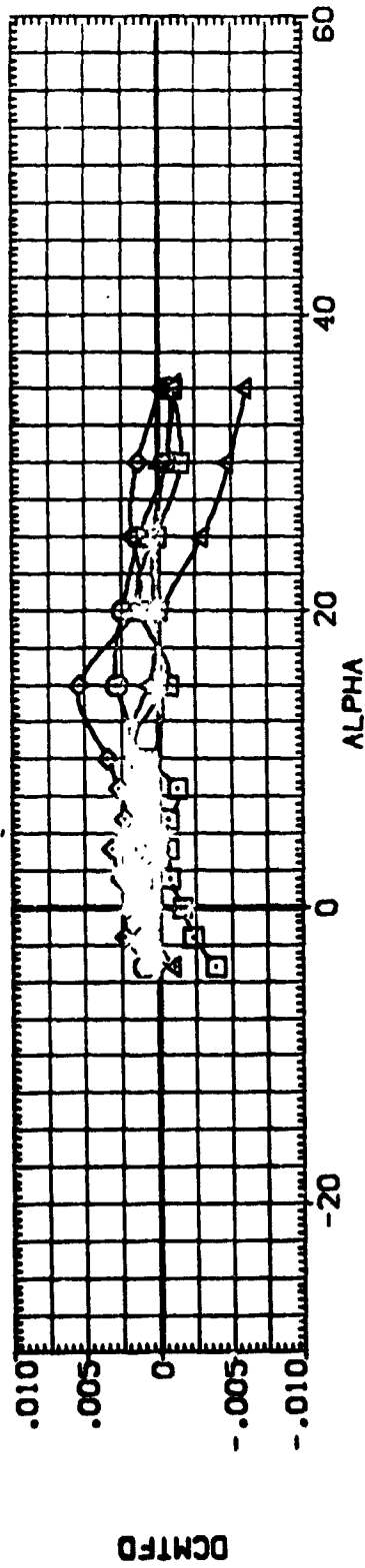


FIG. 6 STING AND NOZZLE TARES
CA/MACH = 2.50

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	BOFLAP	SPDRK	ELEVON	REFERENCE INFORMATION
(P02101)	Q	BA-208 LARC UPVT 1057 140 A/B 098 +DUMMY STING	.000	-11.700	54.520	.000	SREF 2650.0000 SQ.FT.
(P02102)	Q	BA-208 LARC UPVT 1057 140 A/B 098 +DUMMY STING	3.000	-11.700	54.520	.000	LREF 1250.3000 INC-ES
(P02103)	Q	BA-208 LARC UPVT 1057 140 A/B 098 +DUMMY STING	.000	16.300	54.520	.000	BREF 936.6900 INC-ES
(P02104)	Q	BA-208 LARC UPVT 1057 140 A/B 098 +DUMMY STING	.000	16.300	54.520	15.000	YREF 1076.7000 INC-ES
(P02105)	Q	BA-208 LARC UPVT 1057 140 A/B 098 +DUMMY STING	.000	-11.700	54.520	-40.000	ZREF 375.0000 INC-ES
							SCALE .0150

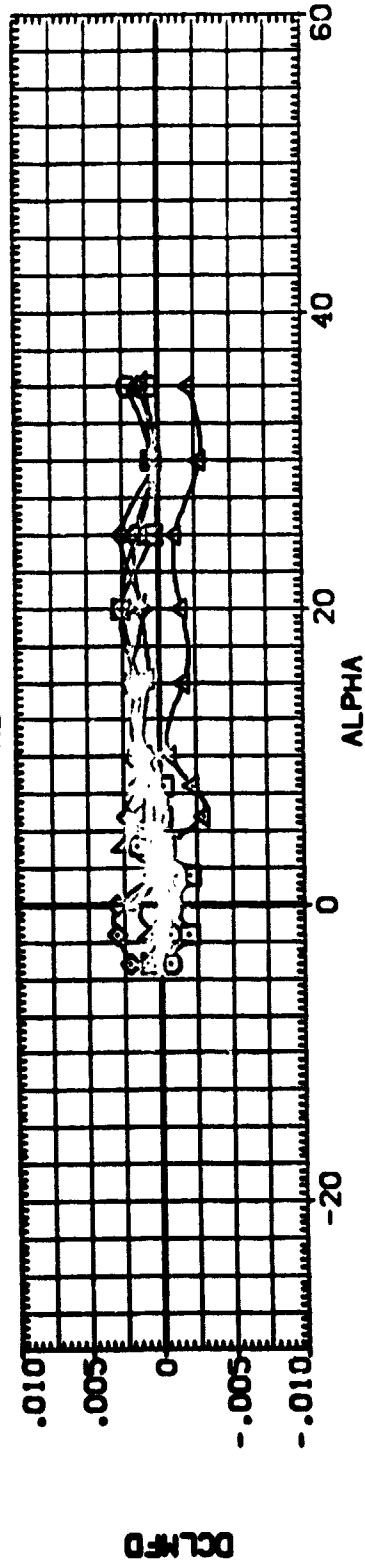
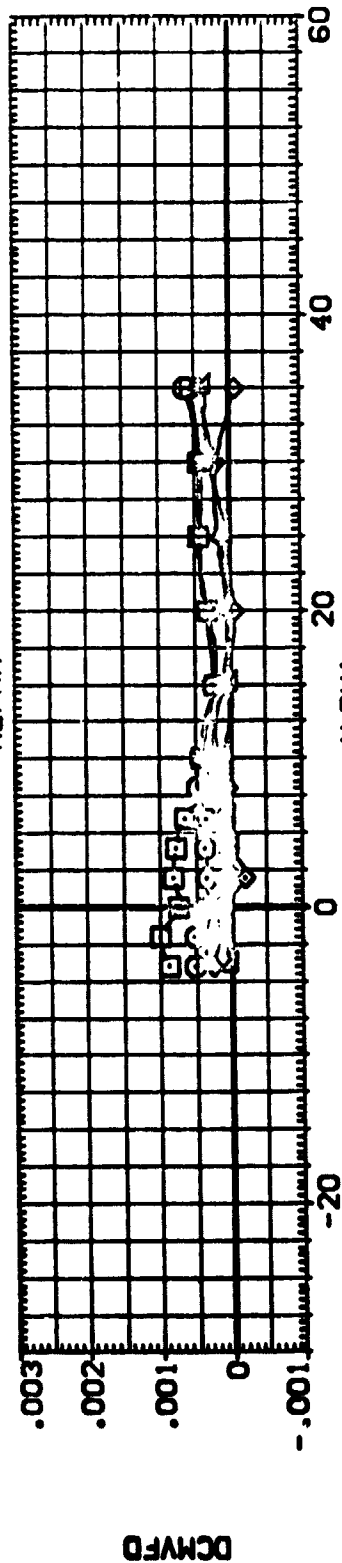
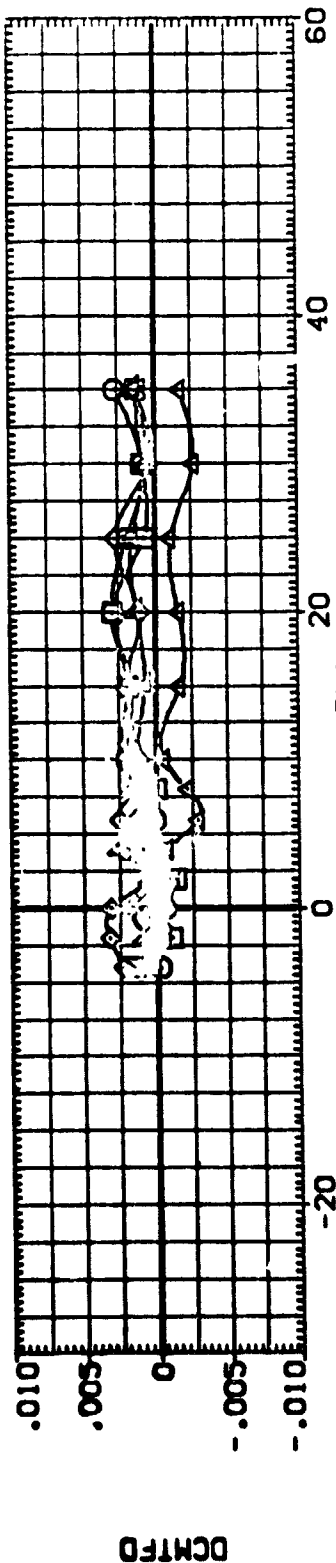


FIG. 6 STING AND NOZZLE TARES
(B)MACH = 3.95



DATA SET	SPEED	CONF	IGRATION	DESCRIPTION	BETA	BDFLAP	SPDRK	ELEVON	REFERENCE INFORMATION	SO.FT.
(P02101)	Q	BA-203	LARC	UPVT 1037	140	A/B	058	+DUMMY STING	SREF	2630.0000
(P02102)	Q	BA-203	LARC	UPVT 1037	140	A/B	058	+DUMMY STING	LREF	1250.3000
(P02103)	Q	BA-203	LARC	UPVT 1037	140	A/B	058	+DUMMY STING	BREF	906.6000
(P02104)	Q	BA-203	LARC	UPVT 1037	140	A/B	058	+DUMMY STING	XREF	1076.7000
(P02105)	Q	BA-203	LARC	UPVT 1037	140	A/B	058	+DUMMY STING	YREF	375.0000
									ZREF	0.0000
									SCALE	0.0150

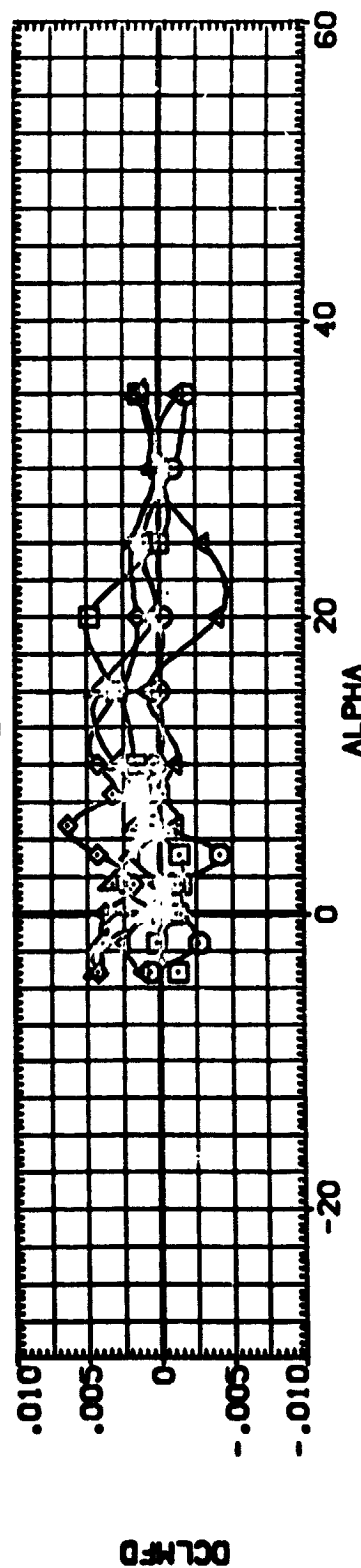
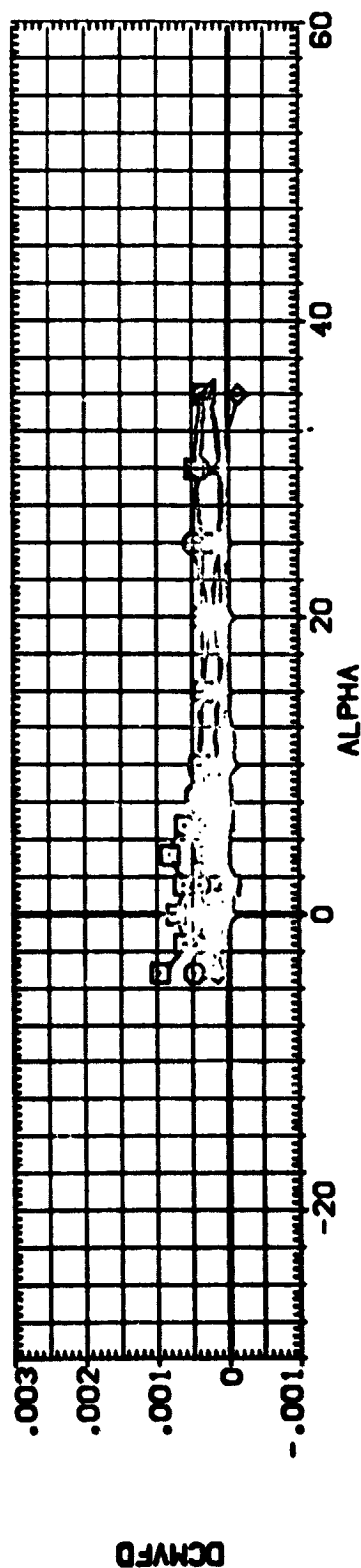
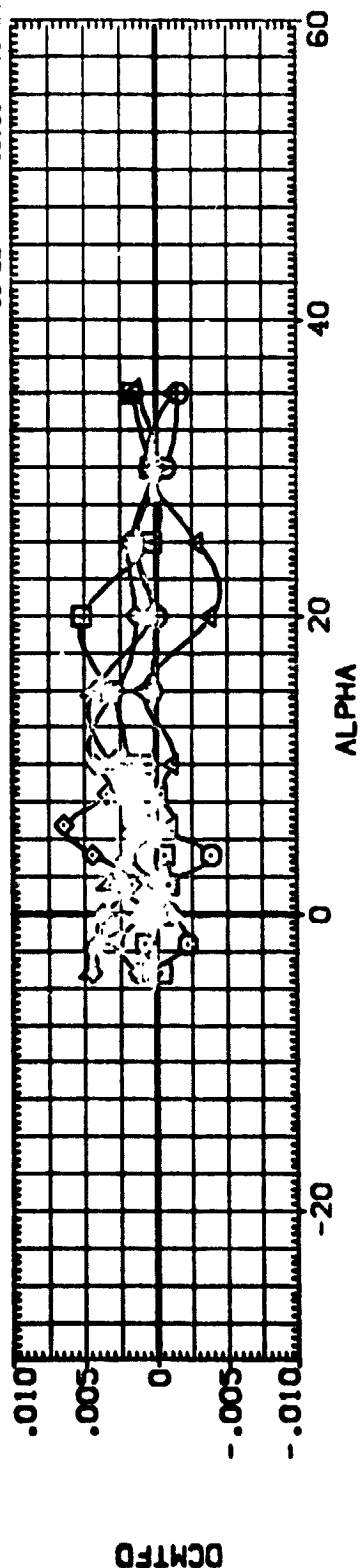


FIG. 6 STING AND NOZZLE TARES

(C)MACH = 4.63

DATA SET SYMBOL		CONFIGURATION DESCRIPTION		BETA		SPOBRK		ELEVON		REFERENCE INFORMATION	
102101	102101	BA-208	LARC UPVT 1077 140	0.000	-11.700	54.920	.000	2690.0000	50.000	50.000	50.000
102102	102102	BA-208	LARC UPVT 1077 140	3.000	-11.700	54.920	.000	1290.3000	10.000	10.000	10.000
102103	102103	BA-208	LARC UPVT 1077 140	0.000	16.300	54.920	.000	935.6000	15.000	15.000	15.000
102104	102104	BA-208	LARC UPVT 1077 140	0.000	16.300	54.920	.000	1076.7000	15.000	15.000	15.000
102105	102105	BA-208	LARC UPVT 1077 140	0.000	-11.700	54.920	.000	375.0000	15.000	15.000	15.000

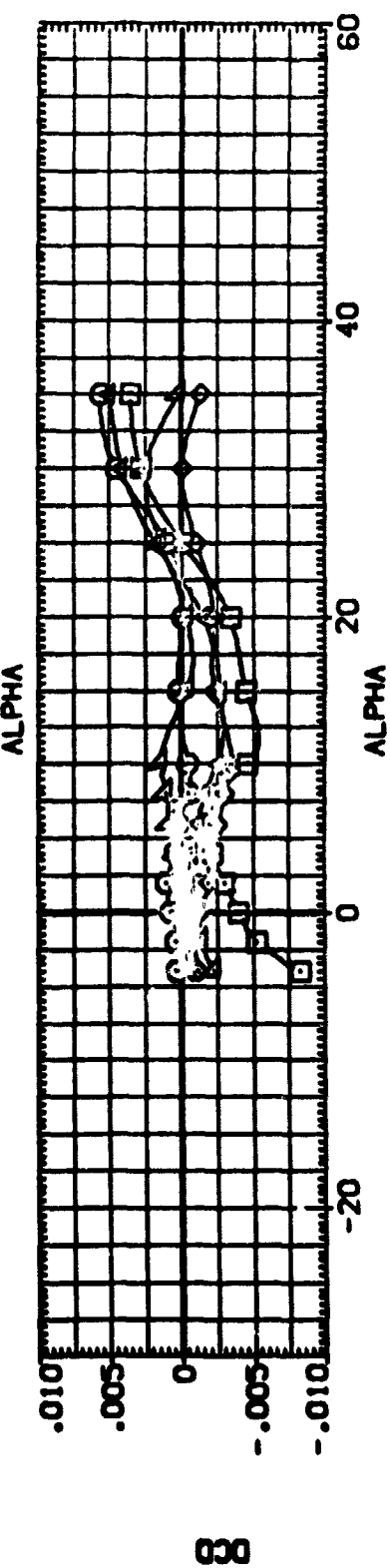
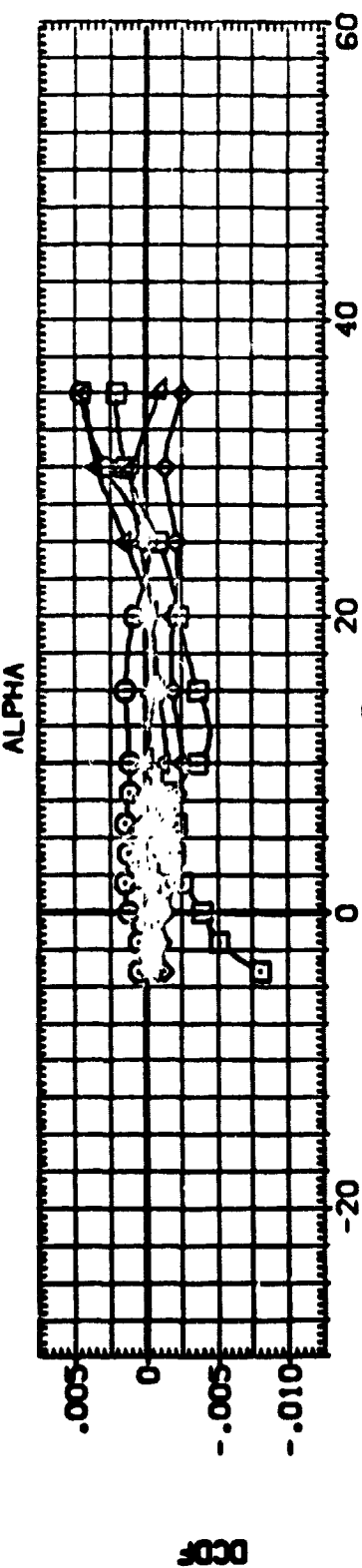
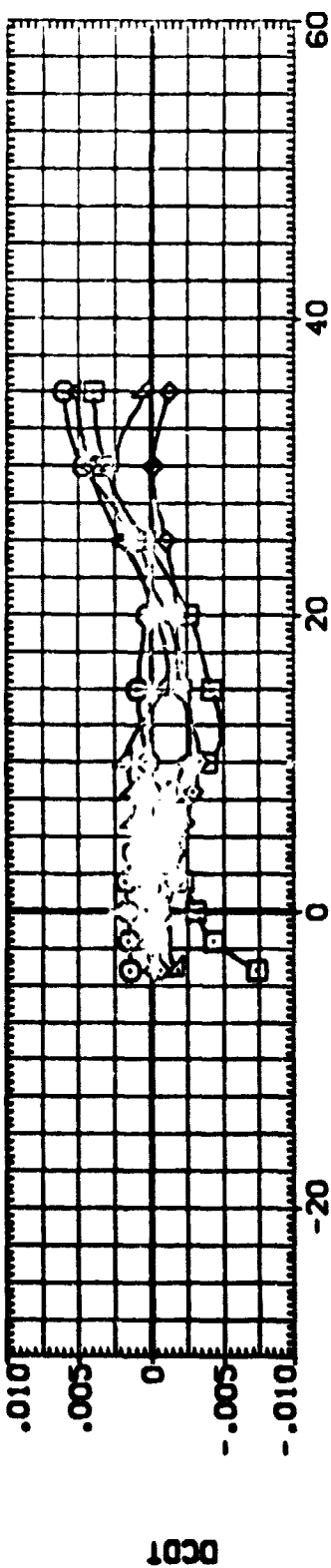


FIG. 6 STING AND NOZZLE TARES
(A)MACH = 2.50



DATA SET SERIAL CONFIGURATION DESCRIPTION REFERENCE INFORMATION

DATA SET SERIAL	CONFIGURATION DESCRIPTION	BETA	SLAP	SPDRK	ELEV	REF	INCHES	SCALE
102101	0A-208 LANE UPVT 1057 10 000	0.000	-11.700	54.520	0.000	SPR	2630.0000	50.000
102102	0A-208 LANE UPVT 1057 10 000	3.000	-11.700	54.520	0.000	URE	1290.3000	INCHES
102103	0A-208 LANE UPVT 1057 10 000	0.000	-16.300	54.520	0.000	URE	806.6700	INCHES
102104	0A-208 LANE UPVT 1057 10 000	0.000	-16.300	54.520	15.000	URE	1076.7000	INCHES
102105	0A-208 LANE UPVT 1057 10 000	0.000	-11.700	54.520	-40.000	URE	375.0000	INCHES

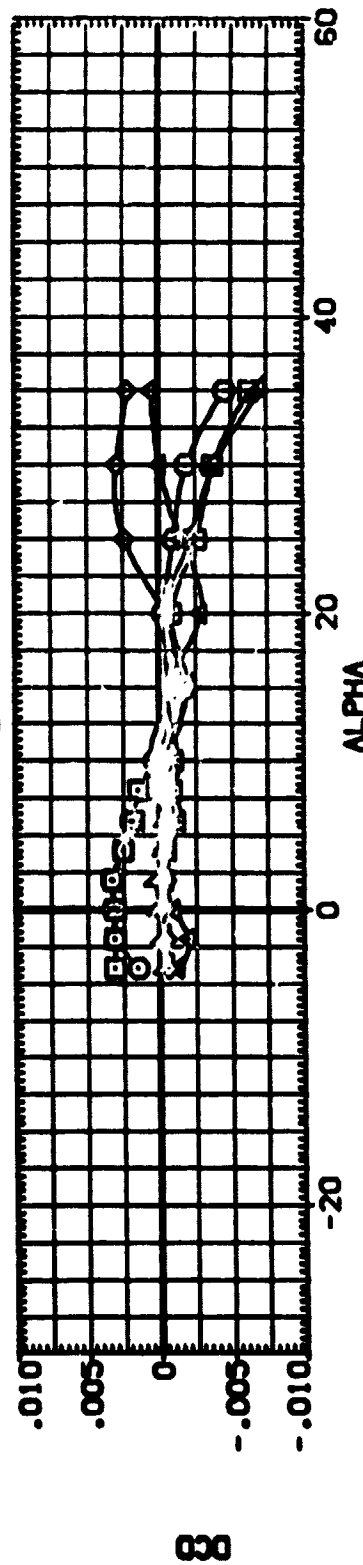
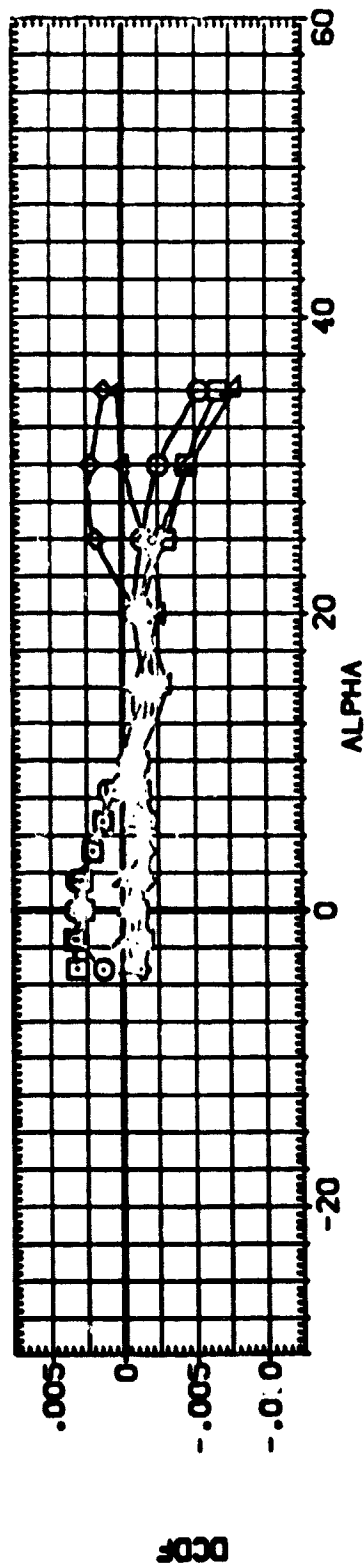
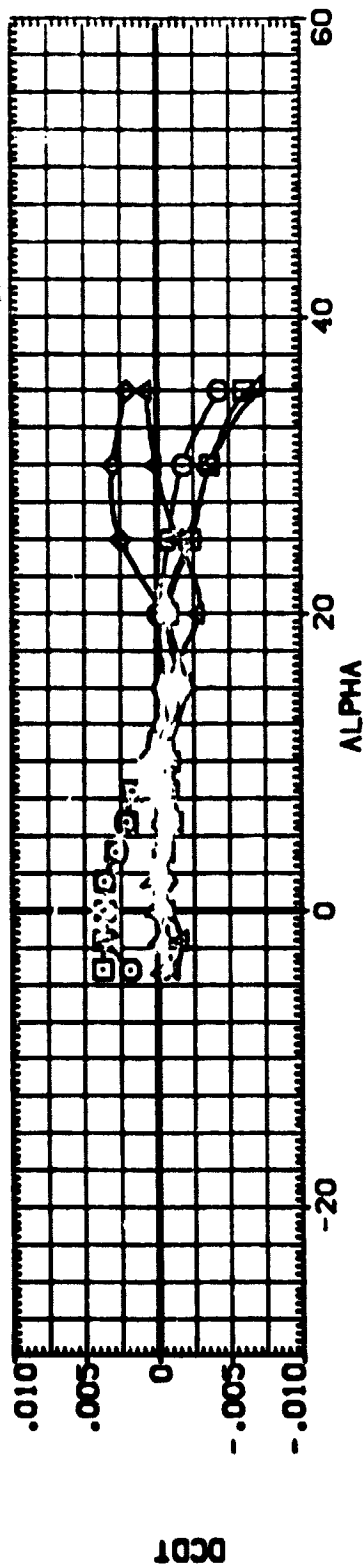


FIG. 6 STING AND NOZZLE TARES
(B)MACH = 3.95

DATA SET SHEET CDF INFORMATION DESCRIPTION REFERENCE INFORMATION

DATA SET	SHEET	CDF INFORMATION	DESCRIPTION	REFERENCE INFORMATION
NOZ101	1	0A-208 LANC	UPAT 1087 140 A/B 088	2690.0000 SQ.FT.
NOZ102	2	0A-208 LANC	UPAT 1087 140 A/B 088	1290.3000 INCHES
NOZ103	3	0A-208 LANC	UPAT 1087 140 A/B 088	935.6300 INCHES
NOZ104	4	0A-208 LANC	UPAT 1087 140 A/B 088	1076.7000 INCHES
NOZ105	5	0A-208 LANC	UPAT 1087 140 A/B 088	375.0000 INCHES

BETA 0.000 ELEVON 54.920 54.920 54.920 54.920
 3.000 0.000 0.000 0.000 0.000 0.000
 16.300 16.300 16.300 16.300 16.300 16.300
 11.700 11.700 11.700 11.700 11.700 11.700
 0.000 0.000 0.000 0.000 0.000 0.000
 15.000 15.000 15.000 15.000 15.000 15.000
 -40.000 -40.000 -40.000 -40.000 -40.000 -40.000
 SCALE 0.0150 0.0150 0.0150 0.0150 0.0150 0.0150

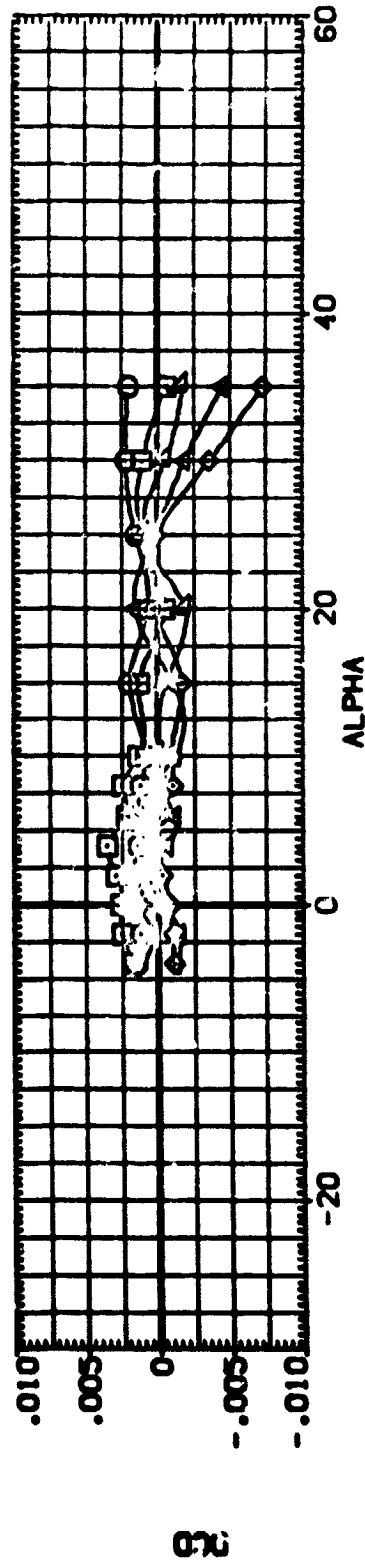
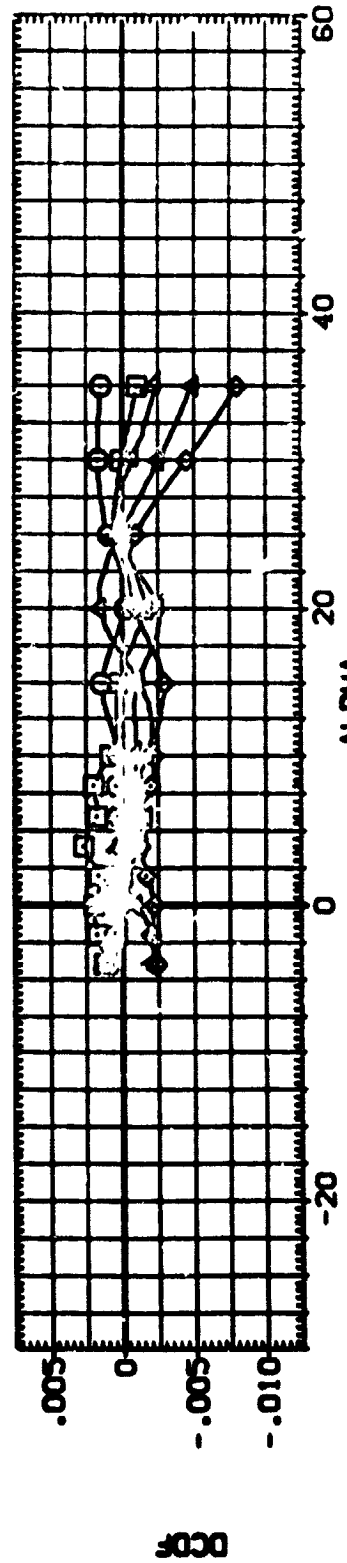
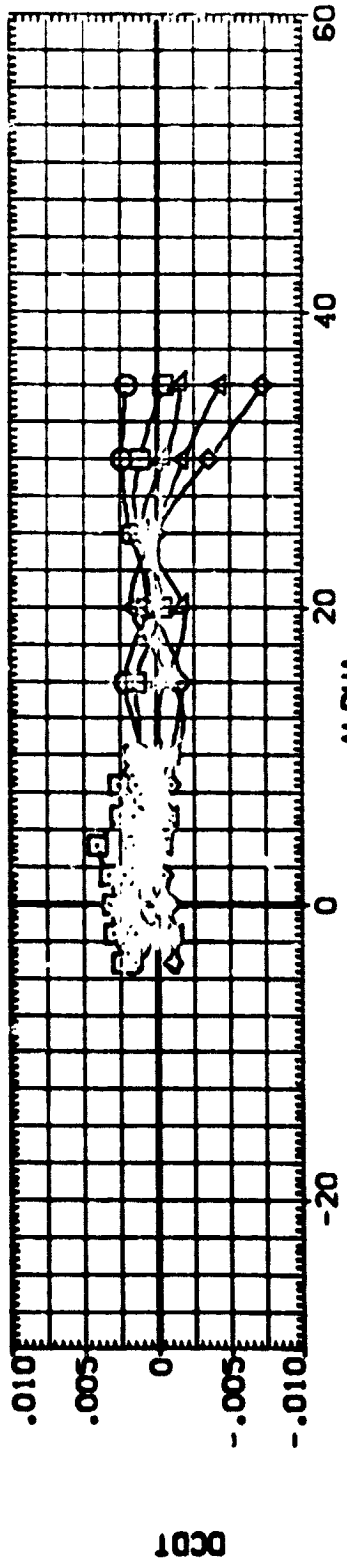


FIG. 6 STING AND NOZZLE TARES
(C)MACH = 4.03



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BDFLAP	SPDBRK	ELEVON	REFERENCE INFORMATION
{J02101}	0A-208 LARC UPVT 1057 140 A/B 088 +DUPHY STING	.000	-11.700	54.920	.000	SREF 2630.0000 50.000
{J02102}	0A-208 LARC UPV 1057 140 A/B 088 +DUPHY STING	3.000	-11.700	54.920	.000	LREF 1290.3000 100.000
{J02103}	0A-208 LARC UPVT 1057 140 A/B 088 +DUPHY STING	.000	16.300	54.920	.000	BREF 936.6000 100.000
{J02104}	0A-208 LARC UPVT 1057 140 A/B 088 +DUPHY STING	.000	16.300	54.920	15.000	XREF 1076.7000 100.000
{J02105}	0A-208 LARC UPVT 1057 140 A/B 088 +DUPHY STING	.000	-11.700	54.920	-40.000	YREF 375.0000 100.000
						ZREF .0150 SCALE

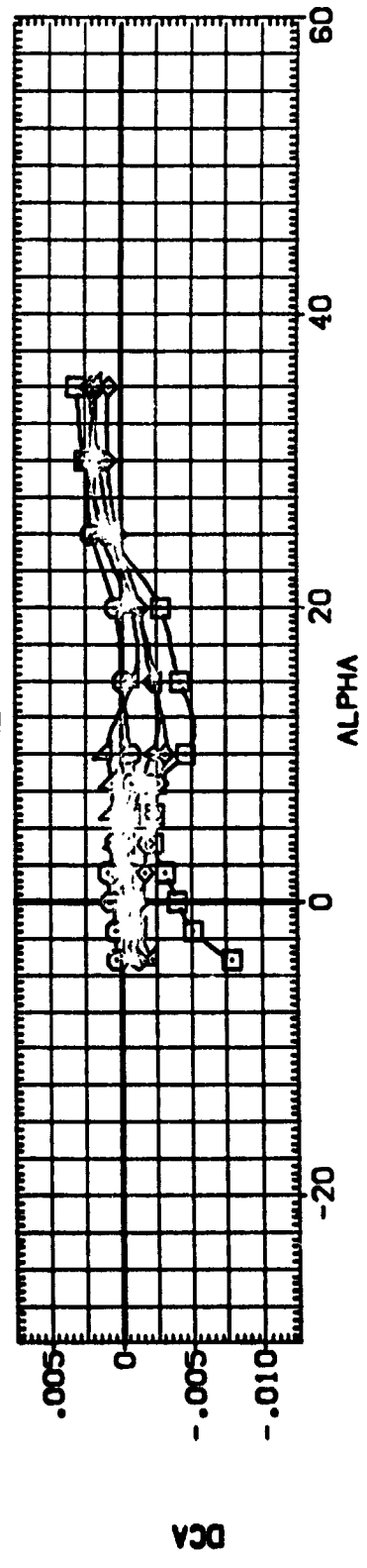
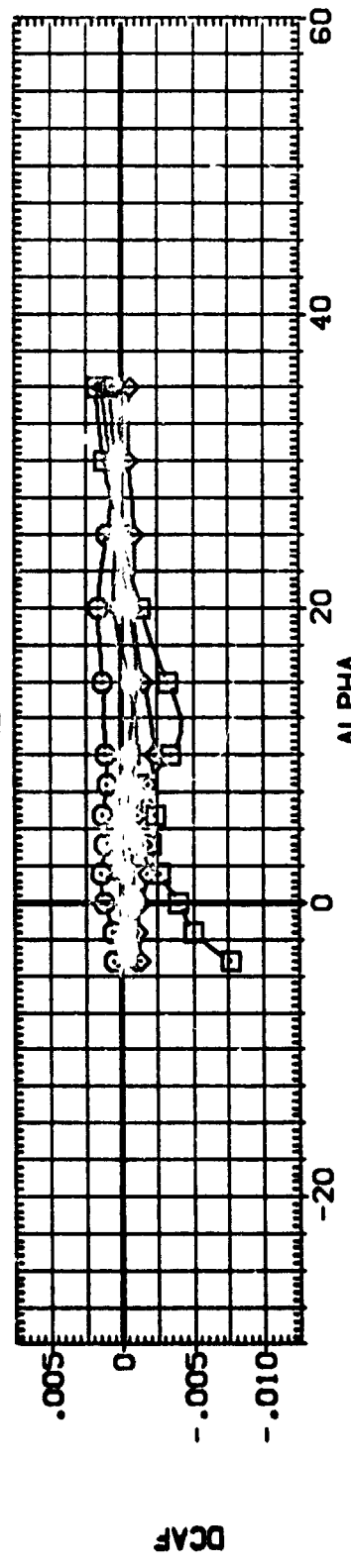
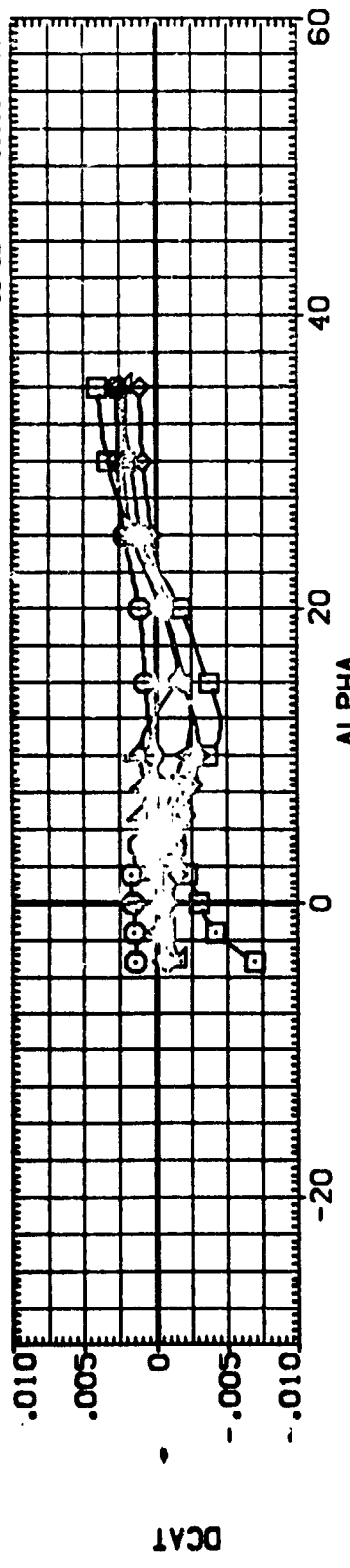


FIG. 6 STING AND NOZZLE TARES
(A)MACH = 2.50

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BOFLAP	SPOBRK	ELEVON	REFERENCE INFORMATION
(J02101)	CA-208 LARC UPVT 1057 140 A/B 078 +DUMMY STING	.000	-11.700	54.920	.000	SREF 2690.0000 SQ.FT.
(J02102)	CA-208 LARC UPVT 1057 140 A/B 078 +DUMMY STING	3.000	-11.700	54.920	.000	LREF 1290.3000 INCHES
(J02103)	CA-208 LARC UPVT 1057 140 A/B 078 +DUMMY STING	.000	16.300	54.920	.000	BREF 926.6000 INCHES
(J02104)	CA-208 LARC UPVT 1057 140 A/B 078 +DUMMY STING	.000	16.300	54.920	15.000	XMRP 1076.7000 INCHES
(J02105)	CA-208 LARC UPVT 1057 140 A/B 078 +DUMMY STING	.000	-11.700	54.920	-40.000	ZMRP .0000 INCHES
						SCALE .0150 INCHES

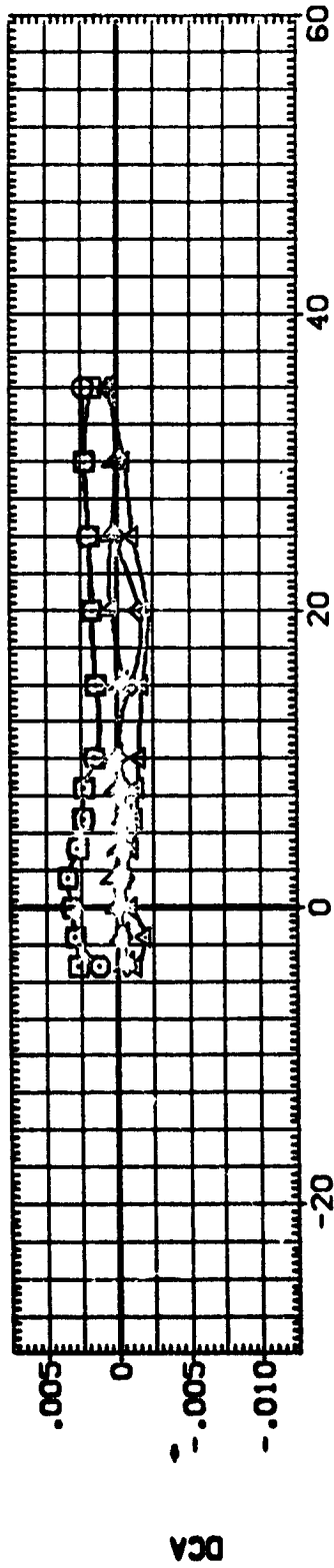
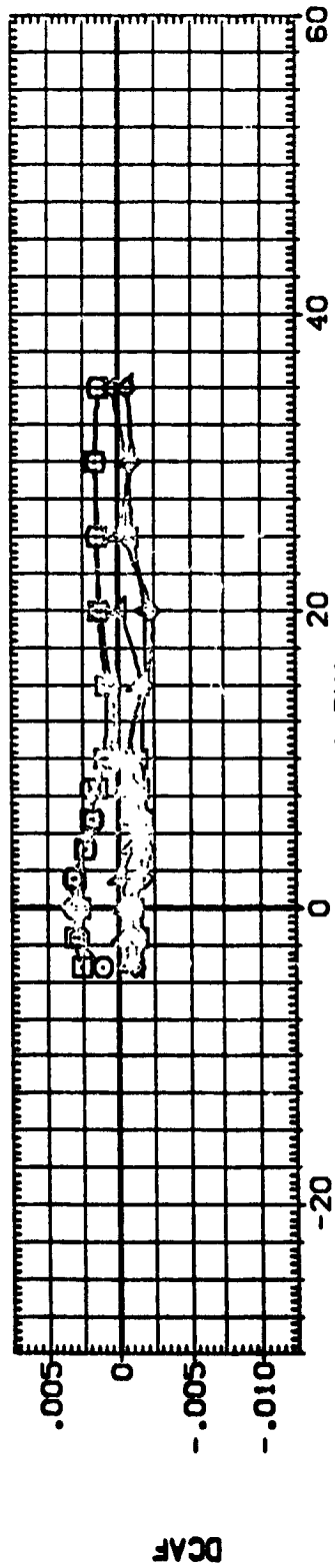
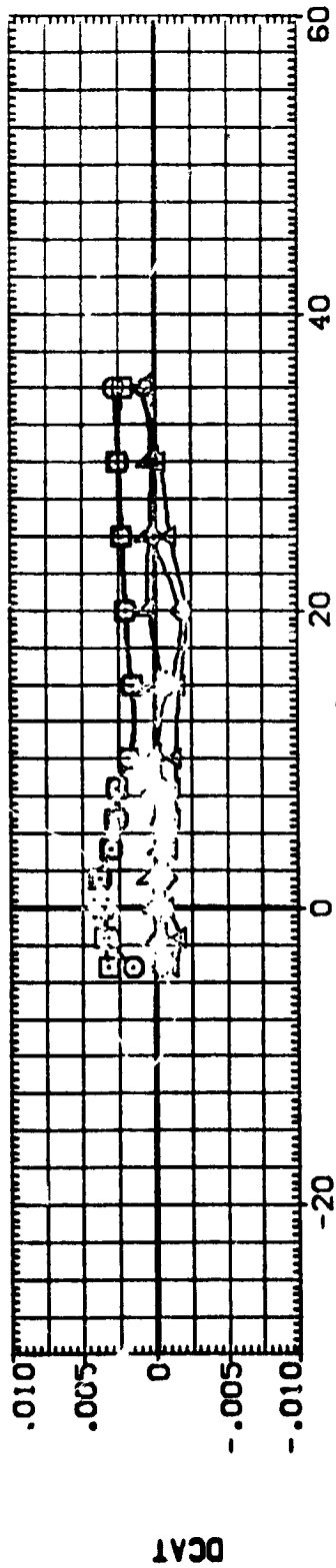


FIG. 6 STING AND NOZZLE TARES
(B)MACH = 3.95

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BDFLAP	SPDRBK	ELEVON	REFERENCE INFORMATION
(J02101)	GA-203 LARC UPVT 1037 140 A/B 038 +DUPPY STING	.000	-11.700	54.520	.000	SREF 2690.0000 50.000
(J02102)	GA-203 LARC UPVT 1037 140 A/B 038 +DUPPY STING	.000	-11.700	54.520	.000	LREF 1290.3000 50.000
(J02103)	GA-203 LARC UPVT 1037 140 A/B 038 +DUPPY STING	.000	-11.700	54.520	.000	BREF 906.5000 50.000
(J02104)	GA-203 LARC UPVT 1037 140 A/B 038 +DUPPY STING	.000	-11.700	54.520	15.000	YMRP 1075.7000 50.000
(J02105)	GA-203 LARC UPVT 1037 140 A/B 038 +DUPPY STING	.000	-11.700	54.520	-40.000	ZMRP 375.0000 50.000
						SCALE .0150 INCHES

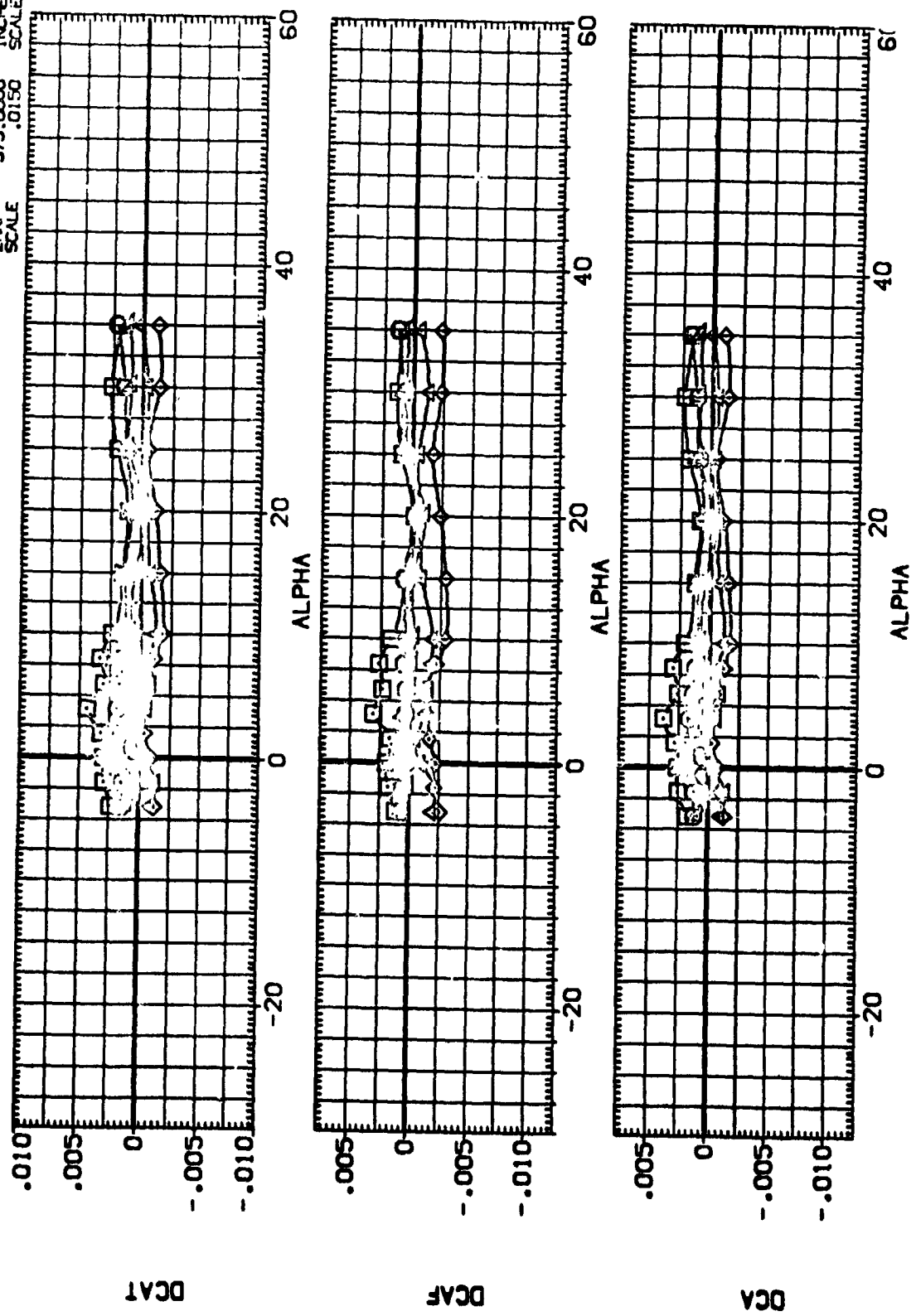


FIG. 6 STING AND NOZZLE TARES

(C)MACH = 4.63

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BOFLAP	SPOBRK	ELEVON	REFERENCE INFORMATION
(A02101)	DA-208 LARC LPVT 1057 140 A/B 058 +DUMMY STING	.000	-11.700	54.920	.000	SREF 2690.0000 SQ.FT.
(A02102)	DA-208 LARC LPVT 1057 140 A/B 058 +DUMMY STING	.000	-11.700	54.920	.000	LREF 1290.3000 IN-ES
(A02103)	DA-208 LARC LPVT 1057 140 A/B 058 +DUMMY STING	.000	-11.700	54.920	.000	BREF 936.6000 IN-ES
(A02104)	DA-208 LARC LPVT 1057 140 A/B 058 +DUMMY STING	.000	-11.700	54.920	.000	YPRP 1076.7000 IN-ES
(A02105)	DA-208 LARC LPVT 1057 140 A/B 058 +DUMMY STING	.000	-11.700	54.920	.000	ZPRP 375.0000 IN-ES
						SCALE .0150

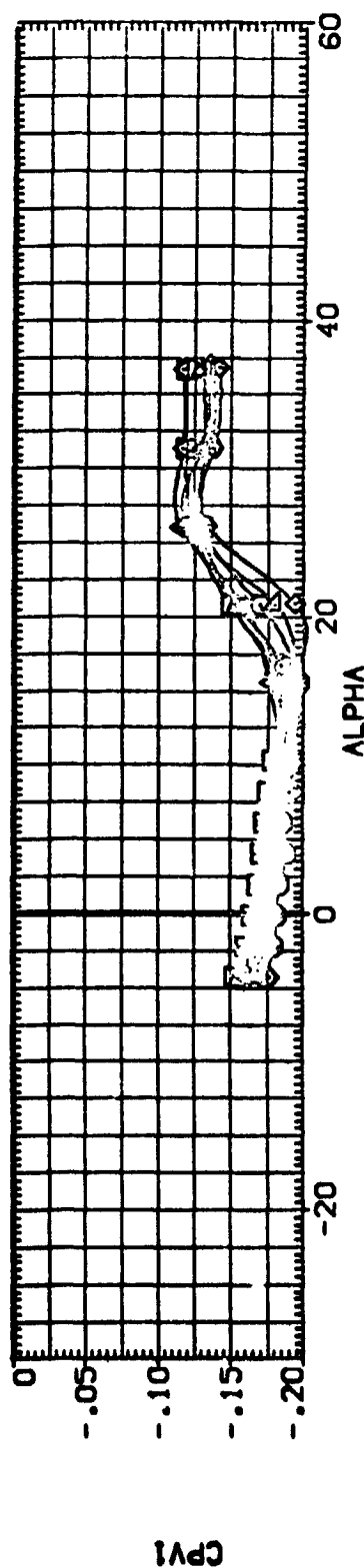
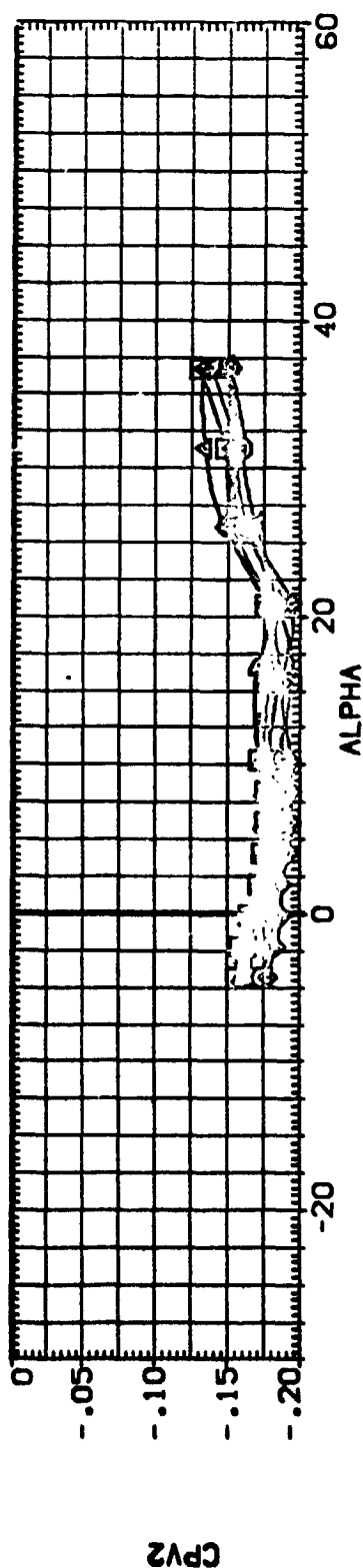
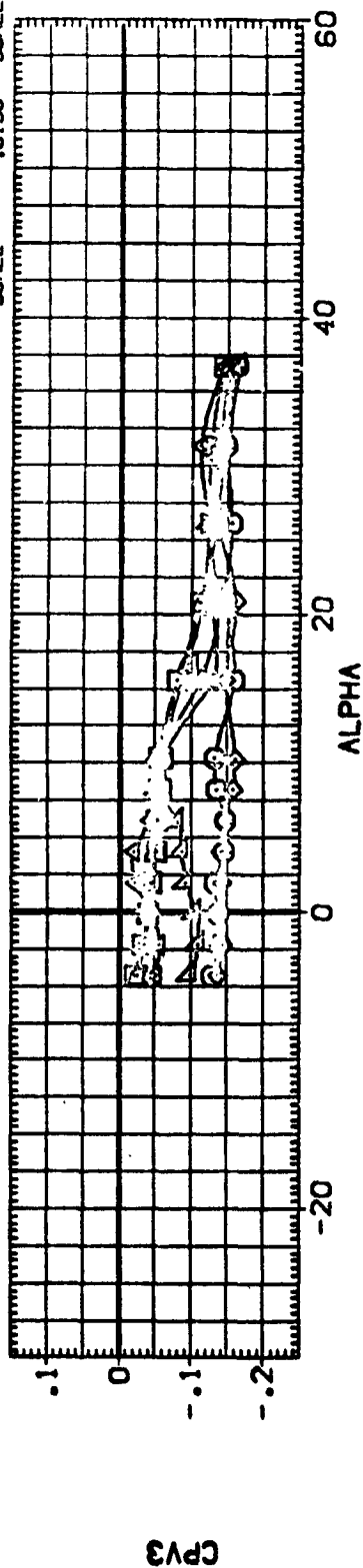


FIG. 6 STING AND NOZZLE TARES
(A)MACH = 2.50



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BDLAP	SPOBPK	ELEVON	REFERENCE INFORMATION
(A02101)	BA-203 LARC UPVT 1097 140 A/B 0/8	.000	-11.700	54.920	.000	SREF 2690.0000 50.000
(A02102)	BA-203 LARC UPVT 1097 140 A/B 0/8	.000	-11.700	54.920	.000	LREF 1290.3000 100.000
(A02103)	BA-203 LARC UPVT 1097 140 A/B 0/8	.000	-11.700	54.920	.000	BREF 935.5000 100.000
(A02104)	BA-203 LARC UPVT 1097 140 A/B 0/8	.000	-11.700	54.920	.000	YREF 1076.7000 100.000
(A02105)	BA-203 LARC UPVT 1097 140 A/B 0/8	.000	-11.700	54.920	.000	ZREF 375.0000 100.000
(A02106)	BA-203 LARC UPVT 1097 140 A/B 0/8	.000	-11.700	54.920	.000	SCALE .0150

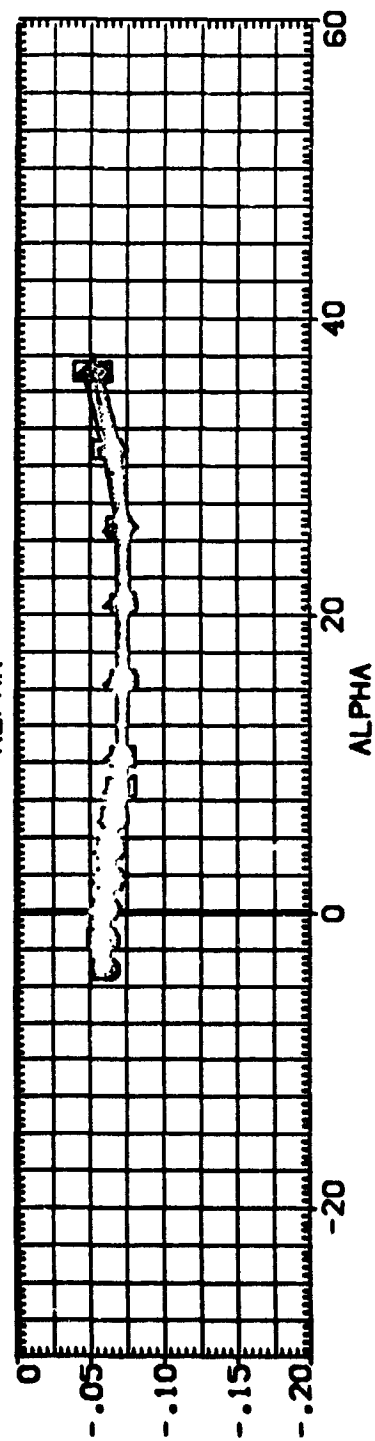
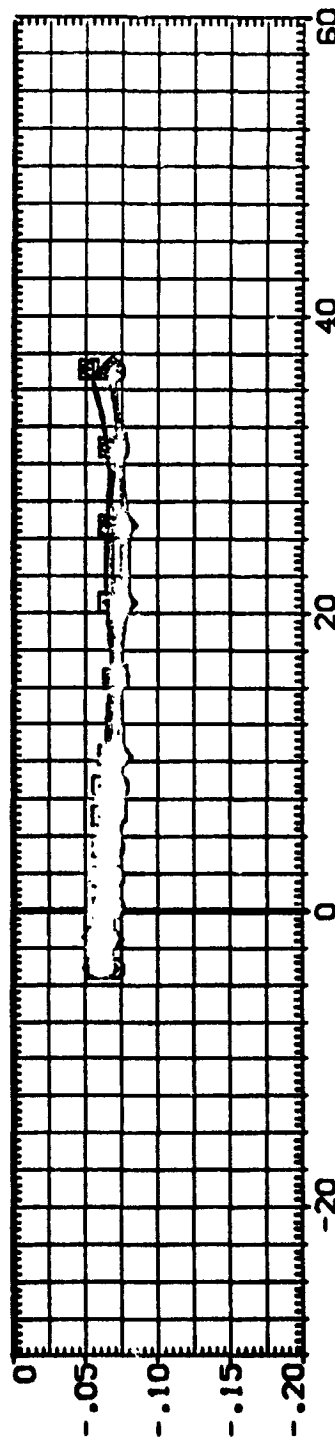
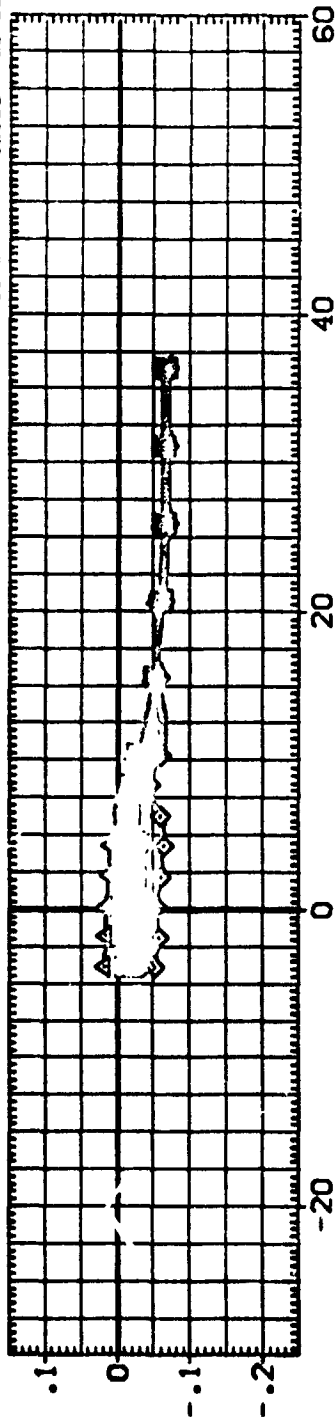
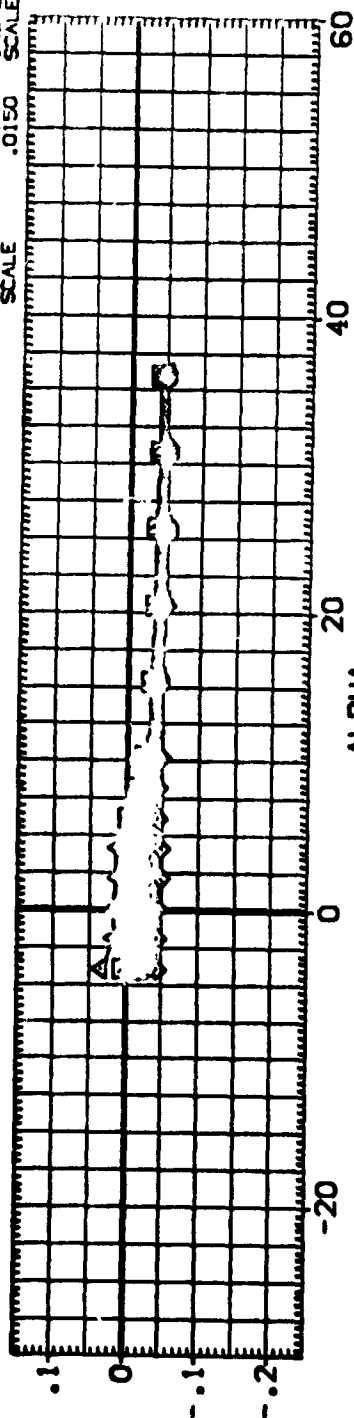


FIG. 6 STING AND NOZZLE TARES

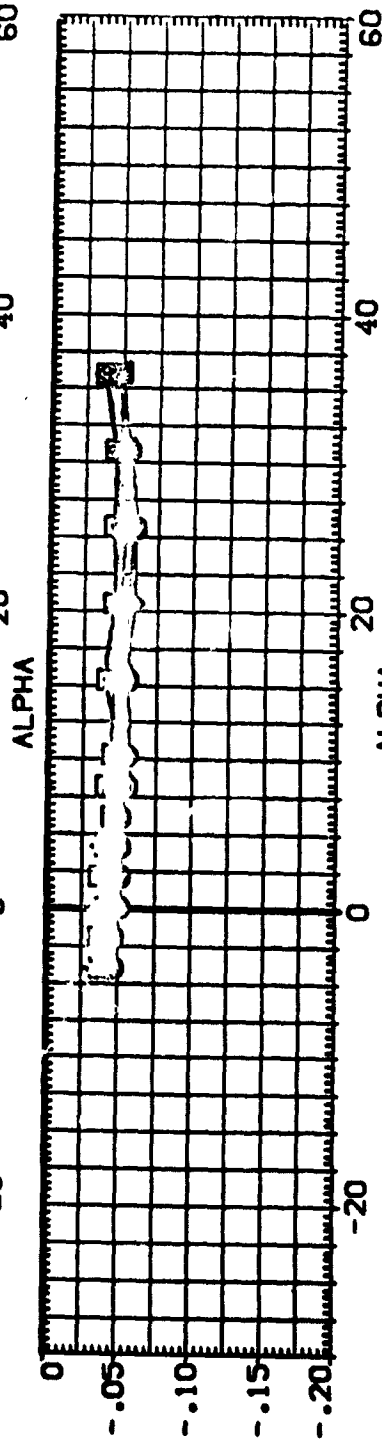
(B)MACH = 3.95

DATA SET SYMBOL CONFIGURATION DESCRIPTION

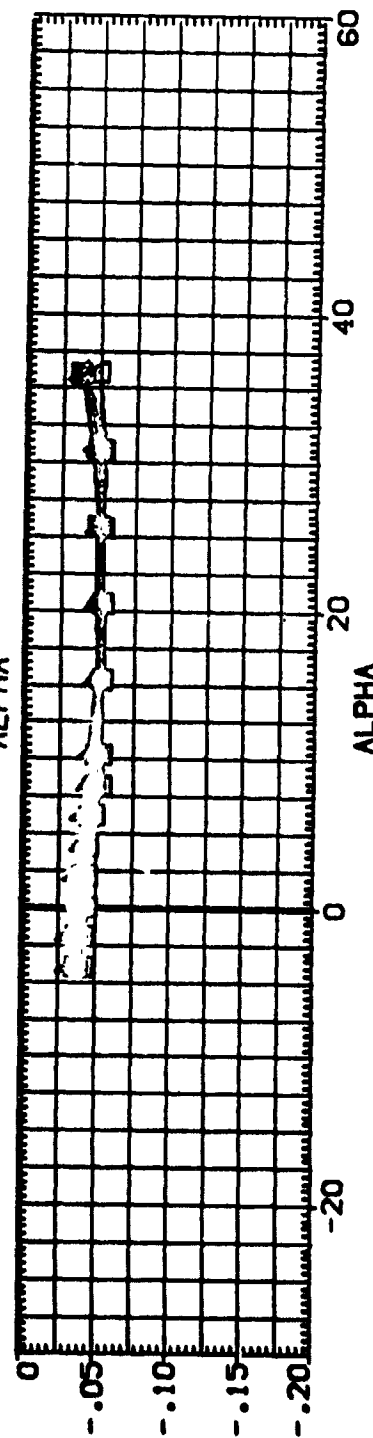
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BD FLAP	SPD BRK	ELEVON	REFERENCE INFORMATION
[A02101]	BA-208 LARC UPVT 1087 140 A/B DBB +DUMMY STING	.000	-11.700	54.920	.000	SREF 2690.0000 50. FT.
[A02102]	BA-208 LARC UPVT 1087 140 A/B DBB +DUMMY STING	.000	-11.700	54.920	.000	LREF 1290.3000 INCHES
[A02103]	BA-208 LARC UPVT 1087 140 A/B DBB +DUMMY STING	.000	-11.700	54.920	.000	BREF 936.6000 INCHES
[A02104]	BA-208 LARC UPVT 1087 140 A/B DBB +DUMMY STING	.000	-11.700	54.920	.000	XTRP 1073.7000 INCHES
[A02105]	BA-208 LARC UPVT 1087 140 A/B DBB +DUMMY STING	.000	-11.700	54.920	.000	YTRP .0000 INCHES
[A02106]	BA-208 LARC UPVT 1087 140 A/B DBB +DUMMY STING	.000	-11.700	54.920	.000	ZTRP 375.0000 INCHES
[A02107]	BA-208 LARC UPVT 1087 140 A/B DBB +DUMMY STING	.000	-11.700	54.920	.000	SCALE .0150



CPV3



CPV2



CPV1

FIG. 6 STING AND NOZZLE TARES

(C)MACH = 4.63



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BD FLAP	SPOILER	ELEVON	REFERENCE INFORMATION
[A02104]	GA-208 LARC UPVT 1057 140 A/B 0/0	.000	16.300	54.520	15.000	SREF 2650.0000 SQ.FT.
[A02110]	GA-208 LARC UPVT 1057 140 A/B 0/0	.000	16.300	54.520	15.000	LREF 1230.3000 INCHES
[A02105]	GA-208 LARC UPVT 1057 140 A/B 0/0	.000	-11.700	54.520	-40.000	BREF 936.6300 INCHES
[A02106]	GA-208 LARC UPVT 1057 140 A/B 0/0	.000	-11.700	54.520	-40.000	YMRP 1076.7000 INCHES
						ZMRP .0000 INCHES
						SCALE 375.0000 INCHES
						SCALE .0150

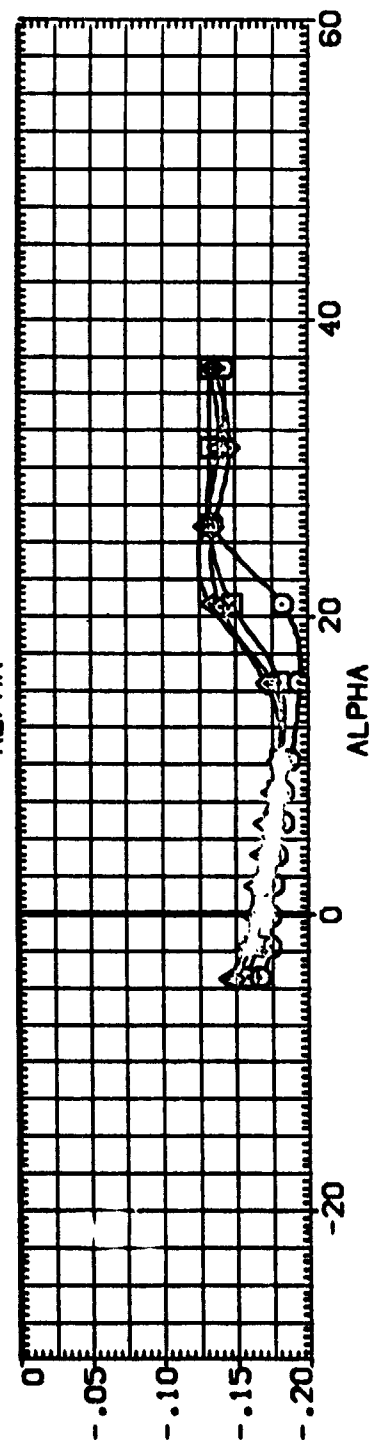
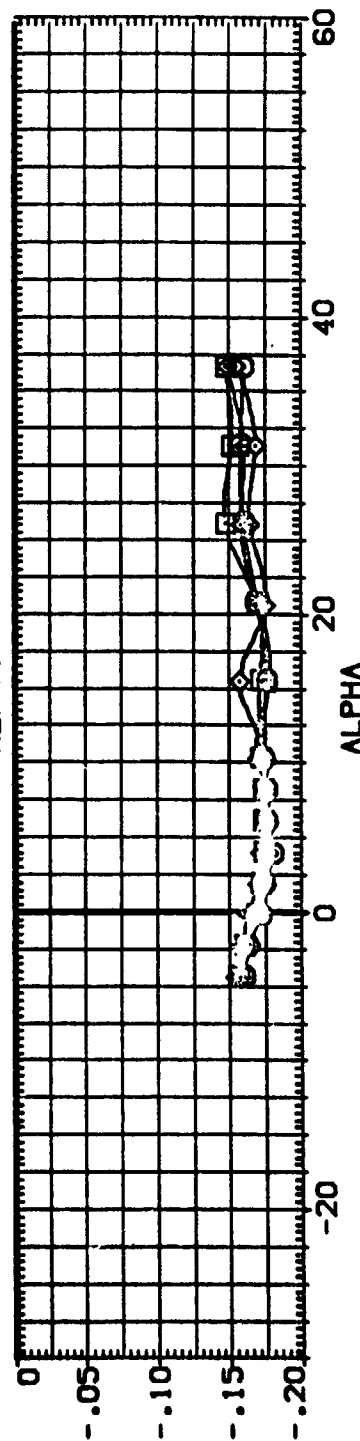
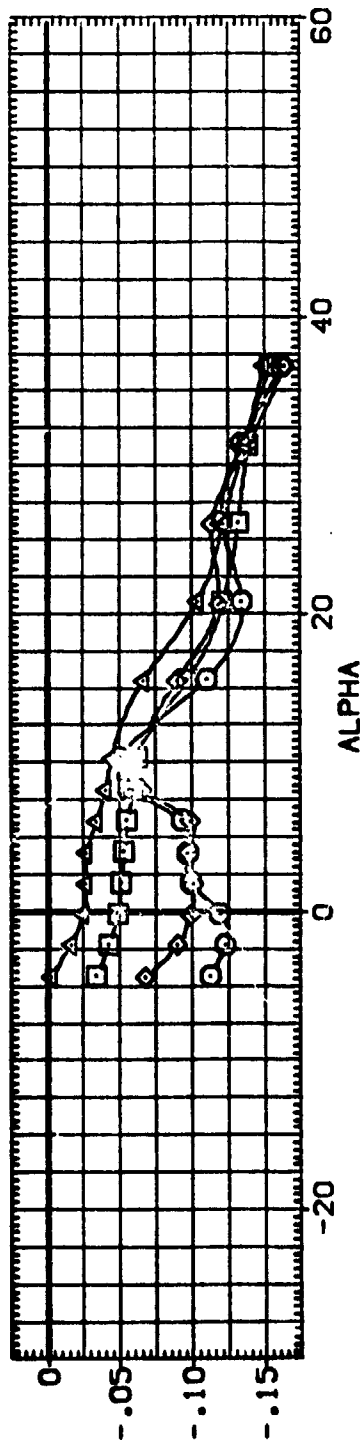


FIG. 6 STING AND NOZZLE TARES

(A)MACH = 2.50

DATA SET SYMBOL CONFIGURATION DESCRIPTION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BOFLAP	SPDBRK	ELEVON	REFERENCE INFORMATION
ADZ104	GA-208 LARC UPVT 1037 140 A/B DBB +QUIN STING	.000	16.300	54.920	15.000	SREF 2690.0000 SQ.FT.
ADZ110	GA-208 LARC UPVT 1037 140 A/B DBB +QUIN STING	.000	16.300	54.920	15.000	LREF 1290.3000 INCHES
ADZ105	GA-208 LARC UPVT 1037 140 A/B DBB +QUIN STING	.000	11.700	54.920	-40.000	BREF 936.6000 INCHES
ADZ106	GA-208 LARC UPVT 1037 140 A/B DBB +QUIN STING	.000	11.700	54.920	-40.000	XREF 1076.7000 INCHES
						YREF .0000 INCHES
						ZREF 375.0000 INCHES
						SCALE .0150 SCALE

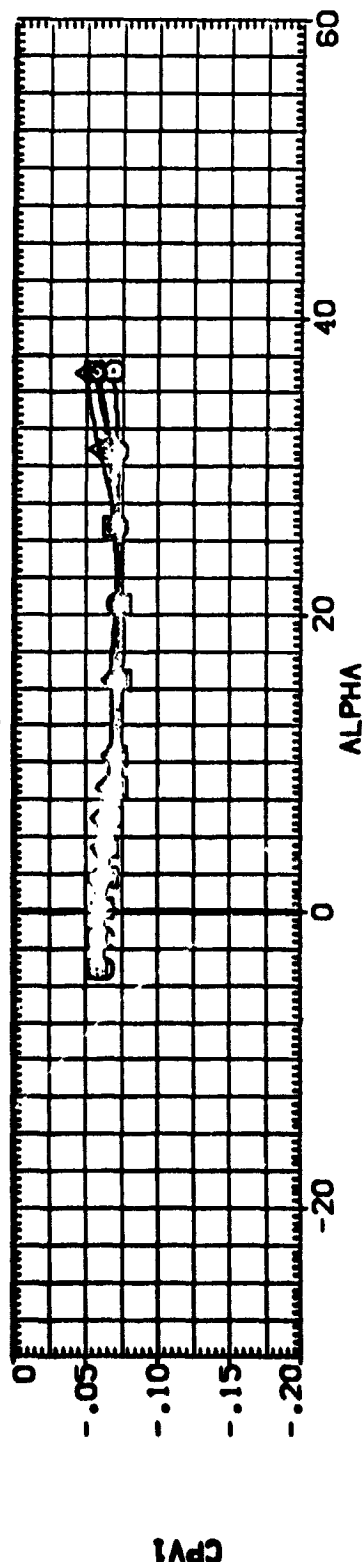
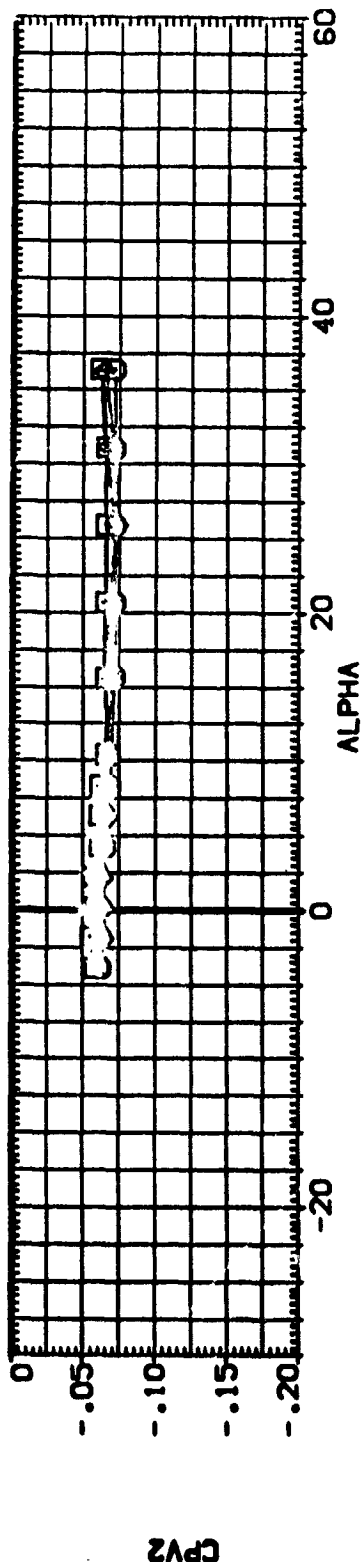
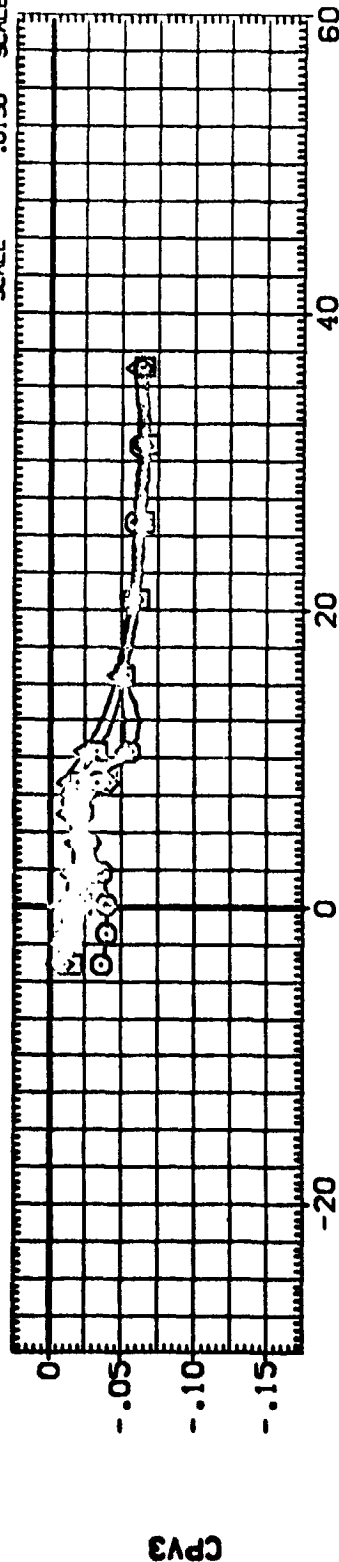


FIG. 6 STING AND NOZZLE TARES
(B)MACH = 3.95



DATA SET SYMBOL		CONFIGURATION DESCRIPTION				BETA		BOFLAP		SPDWRK		ELEVON		REFERENCE INFORMATION			
{A02104}	□	GA-208	LARC	UPVT	1057	140	A/B	000	16.300	54.920	15.000	SREF	2630.0000	50. FT.			
{A02110}	□	GA-208	LARC	UPVT	1057	140	A/B	000	16.300	54.920	15.000	UREF	1250.3000	INCHES			
{A02103}	□	GA-208	LARC	UPVT	1057	140	A/B	000	16.300	54.920	15.000	BREF	936.6800	INCHES			
{A02106}	□	GA-208	LARC	UPVT	1057	140	A/B	000	16.300	54.920	15.000	XPRP	1076.7000	INCHES			
								000	16.300	54.920	15.000	YPRP	0.0000	INCHES			
								000	16.300	54.920	15.000	ZPRP	375.0000	INCHES			
								000	16.300	54.920	15.000	SCALE	.0150	SCALE			

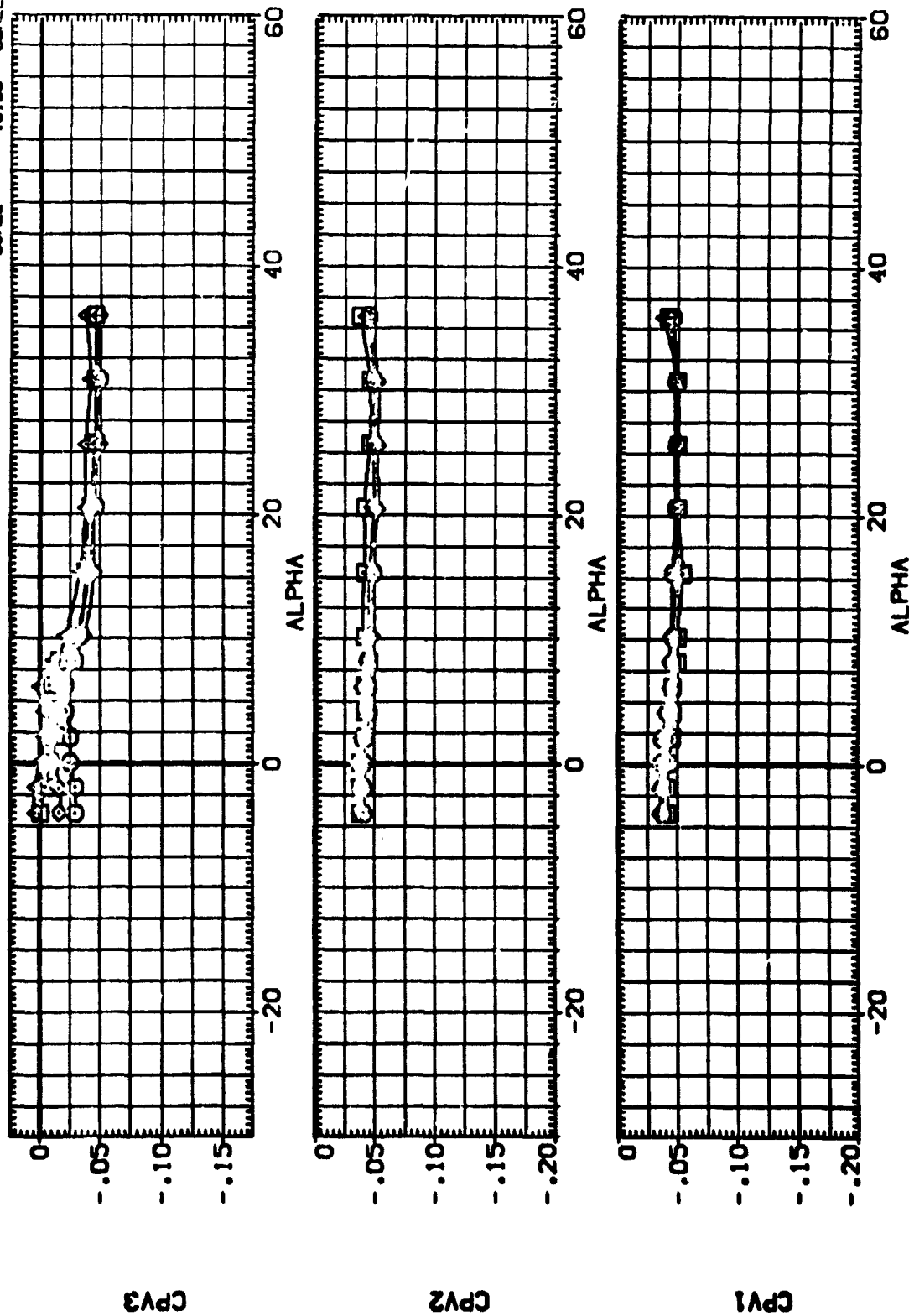
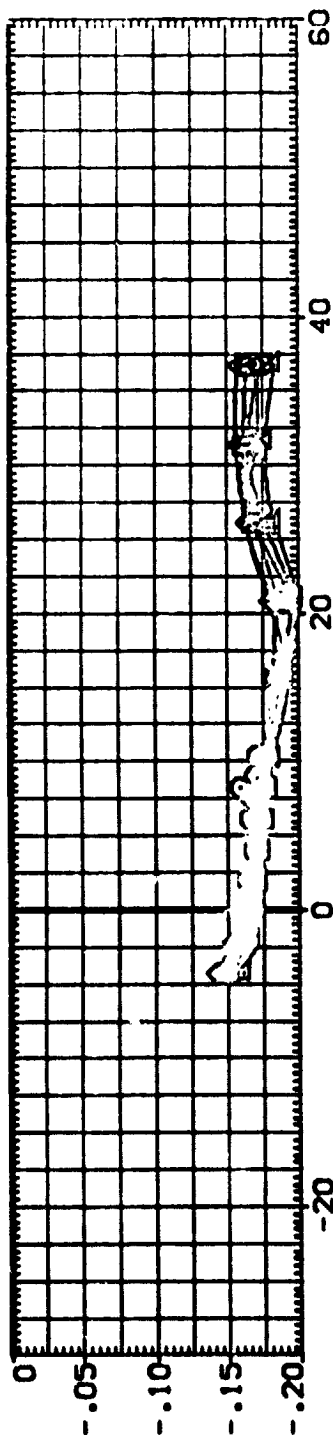


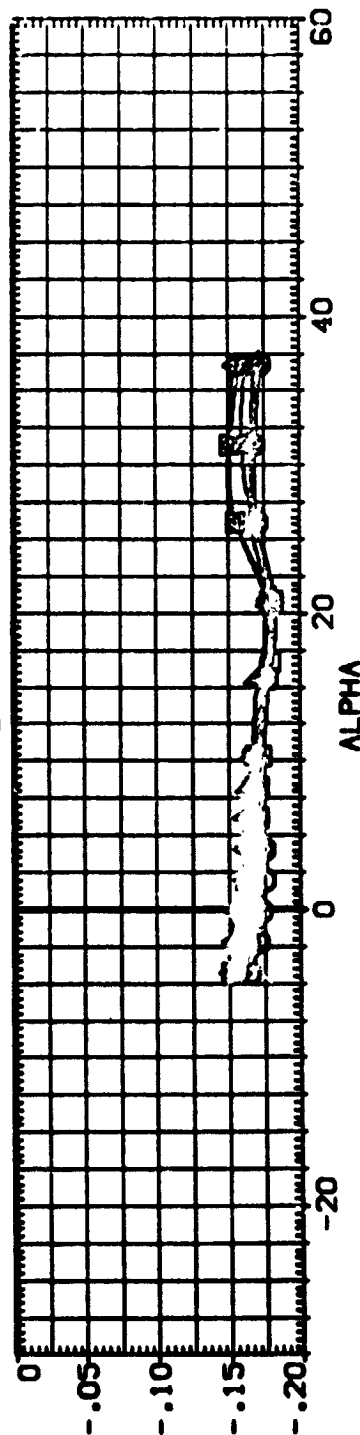
FIG. 6 STING AND NOZZLE TARES
(C)MACH = 4.63

DATA SET SYMBOL	CONF	IGURATION	DESCRIPTION	BETA	BOFLAP	SPDRK	ELEVON	REFERENCE INFORMATION
(A02101)	0A-208	LARC	UPVT 1057 140 A/B 078	.000	-11.700	54.920	.000	SREF 2630.0000
(A02102)	0A-208	LARC	UPVT 1057 140 A/B 078	.000	-11.700	54.920	.000	LREF 1250.3000
(A02103)	0A-208	LARC	UPVT 1057 140 A/B 078	3.000	-11.700	54.920	.000	BREF 936.6000
(A02104)	0A-208	LARC	UPVT 1057 140 A/B 078	.000	16.300	54.920	.000	XREF 1076.7000
(A02105)	0A-208	LARC	UPVT 1057 140 A/B 078	.000	16.300	54.920	.000	YREF .0000
(A02106)	0A-208	LARC	UPVT 1057 140 A/B 078	.000	16.300	54.920	.000	ZREF 375.0000
(A02107)	0A-208	LARC	UPVT 1057 140 A/B 078	.000	16.300	54.920	.000	SCALE .0150

CP33



CP82



CP81

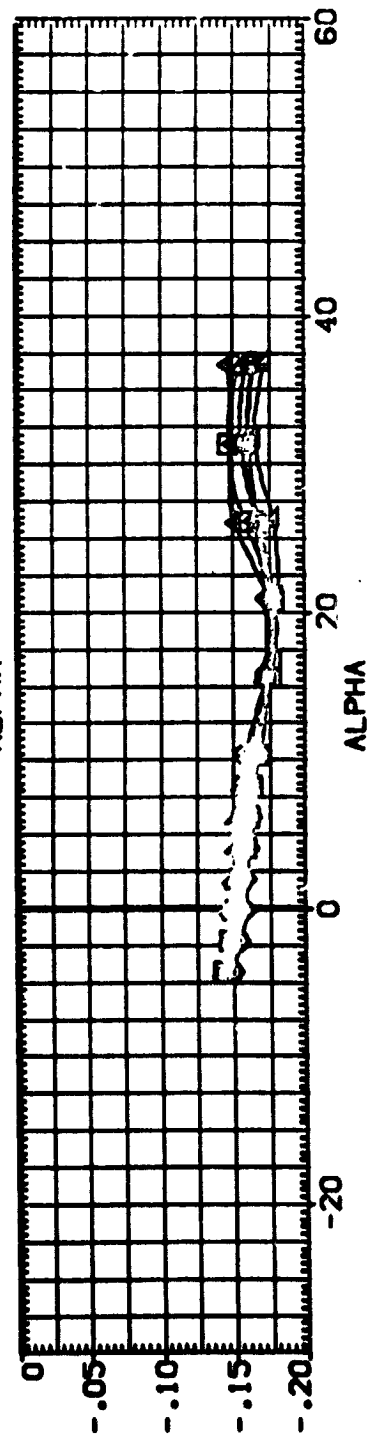
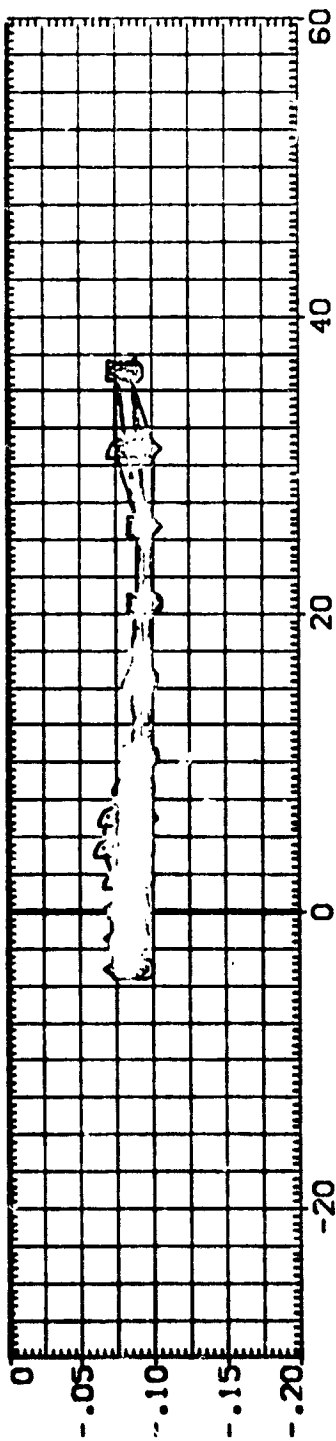


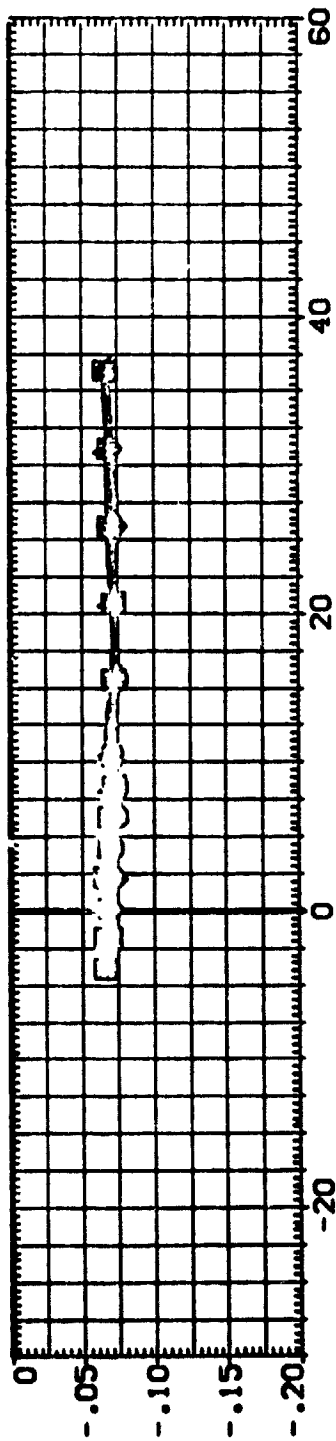
FIG. 6 STING AND NOZZLE TARES
(A)MACH = 2.50



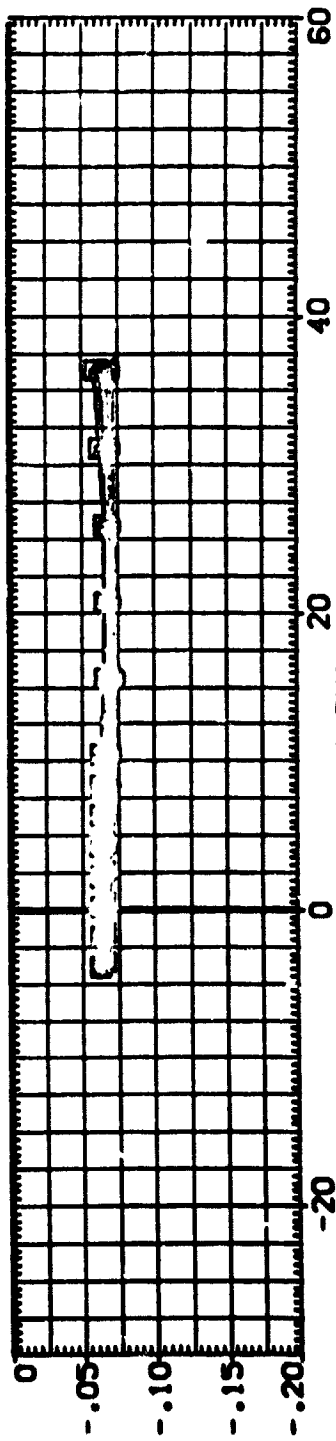
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BOFLAP	SPORBK	ELEVON	REFERENCE INFORMATION
{A02101}	DA-208 LARC UPVT 1057 140 A/B 058 +DUMMY STING	.000	-11.700	54.920	.000	SREF 2690.0000 SQ.FT.
{A02102}	DA-208 LARC UPVT 1057 140 A/B 058	.000	-11.700	54.920	.000	LREF 1290.3000 INCHES
{A02103}	DA-208 LARC UPVT 1057 140 A/B 058 + DUMMY STING	3.000	-11.700	54.920	.000	BREF 935.6300 INCHES
{A02104}	DA-208 LARC UPVT 1057 140 A/B 058	3.000	-11.700	54.920	.000	XTRP 1076.7000 INCHES
{A02105}	DA-208 LARC UPVT 1057 140 A/B 058 +DUMMY STING	.000	16.300	54.920	.000	YTRP .0000 INCHES
{A02106}	DA-208 LARC UPVT 1057 140 A/B 058	.000	16.300	54.920	.000	ZTRP .0000 INCHES
					SCALE	.0150 SCALE



CP83



CP82



CP81

FIG. 6 STING AND NOZZLE TARES
(B)MACH = 3.95

DATA SET	SYMBOL	CONFIGURATION DESCRIPTION	BETA	BOFLAP	SPDRK	ELEVON	REFERENCE INFORMATION
[A02101]		0A-208 LARC UPVT 1087 140 A/B 028	.000	-11.700	54.520	.000	SREF 2630.0000 SQ.FT.
[A02102]		0A-208 LARC UPVT 1087 140 A/B 028	.000	-11.700	54.520	.000	LREF 1230.3000 INCHES
[A02103]		0A-208 LARC UPVT 1087 140 A/B 028	3.000	-11.700	54.520	.000	BREF 938.6300 INCHES
[A02104]		0A-208 LARC UPVT 1087 140 A/B 028	.000	-16.300	54.520	.000	XREF 1076.7000 INCHES
[A02105]		0A-208 LARC UPVT 1087 140 A/B 028	.000	16.300	54.520	.000	YREF .0000 INCHES
[A02106]		0A-208 LARC UPVT 1087 140 A/B 028	.000	16.300	54.520	.000	ZREF 375.0000 INCHES
							SCALE .0150 SCALE

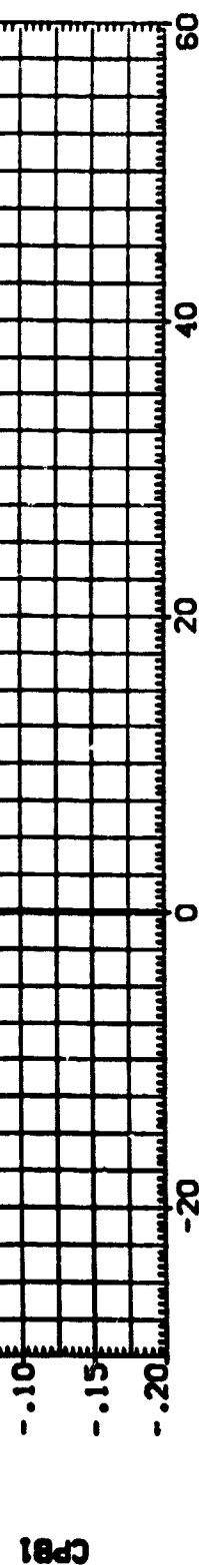
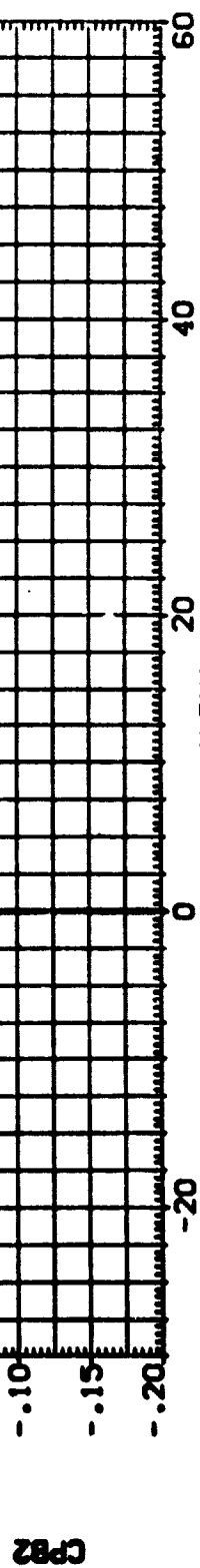
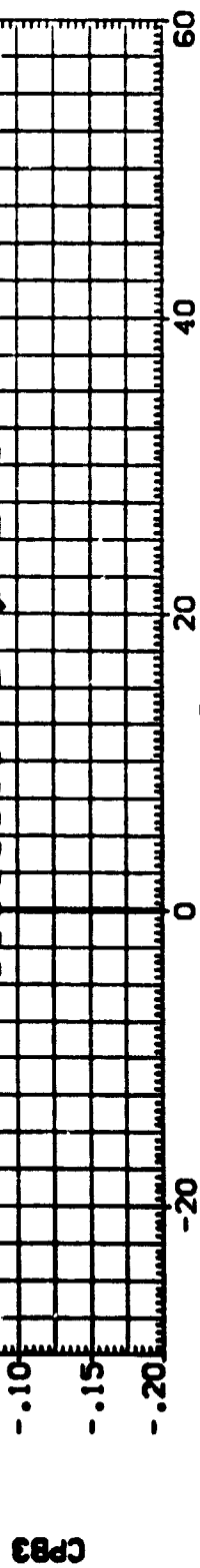
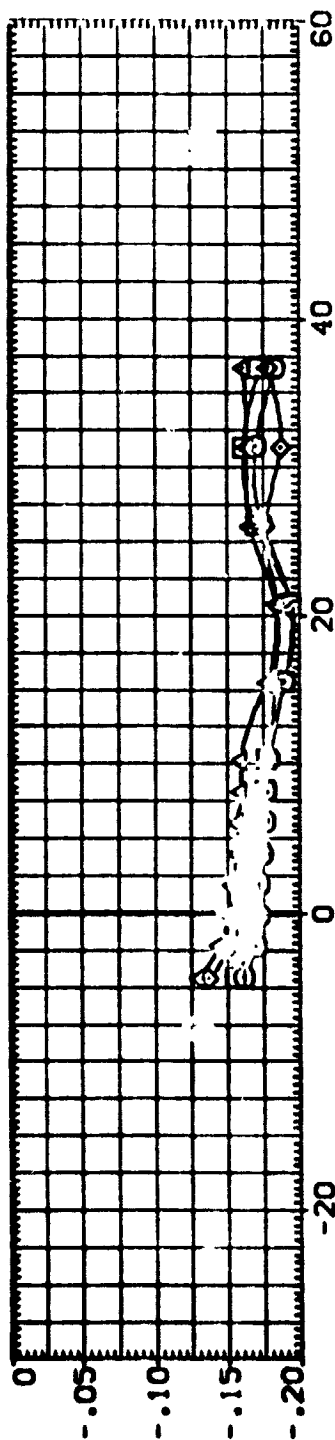


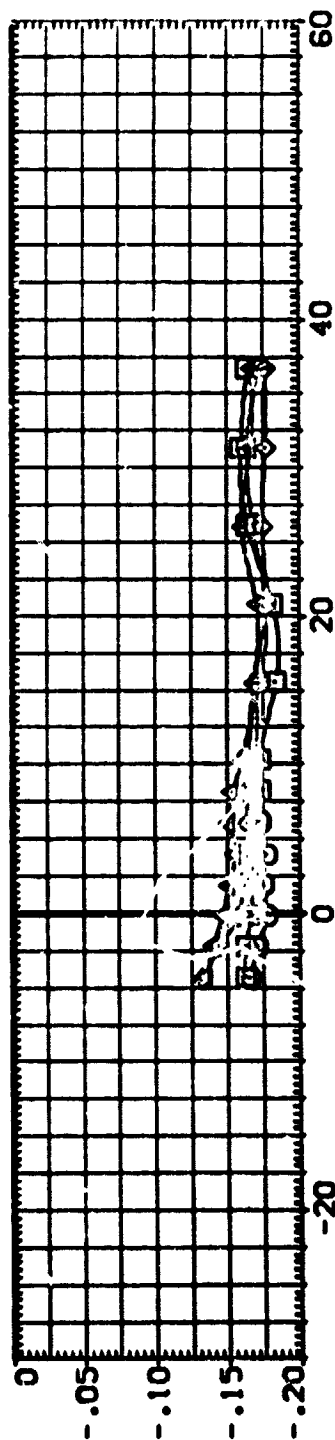
FIG. 6 STING AND NOZZLE TARES
(C)MACH = 4.63



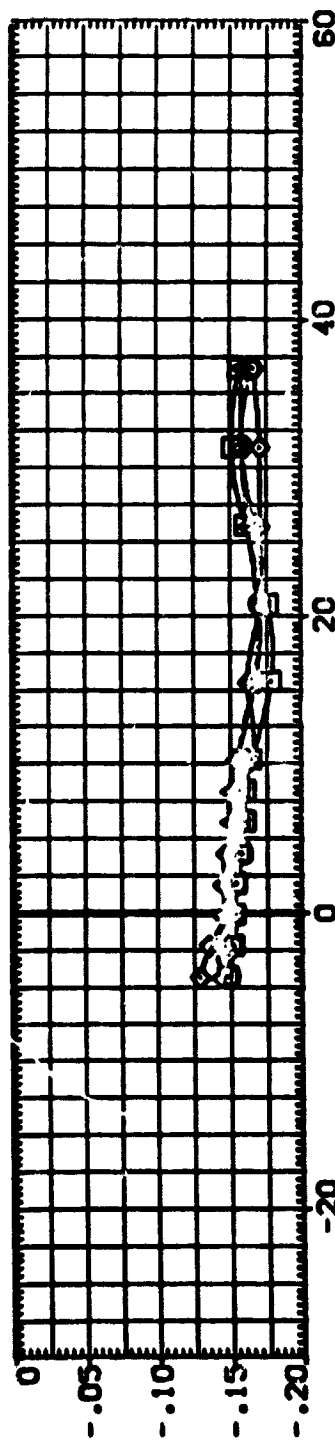
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	REFLAP	SPDRK	ELEVON	REFERENCE INFORMATION
(A02104)	0A-208 LARC UPVT 1057 140 A/B DBB	.000	16.300	54.520	15.000	SREF 2620.0000 SQ.FT.
(A02105)	0A-208 LARC UPVT 1057 140 A/B DBB	.000	16.300	54.520	15.000	LREF 1280.3000 INCHES
(A02106)	0A-208 LARC UPVT 1057 140 A/B DBB	.000	-11.700	54.520	-40.000	BREF 533.6000 INCHES
(A02107)	0A-208 LARC UPVT 1057 140 A/B DBB	.000	-11.700	54.520	-40.000	XTRP .076.7000 INCHES
						YTRP .0000 INCHES
						ZTRP .0000 INCHES
						SCALE .0150



CP83



CP82

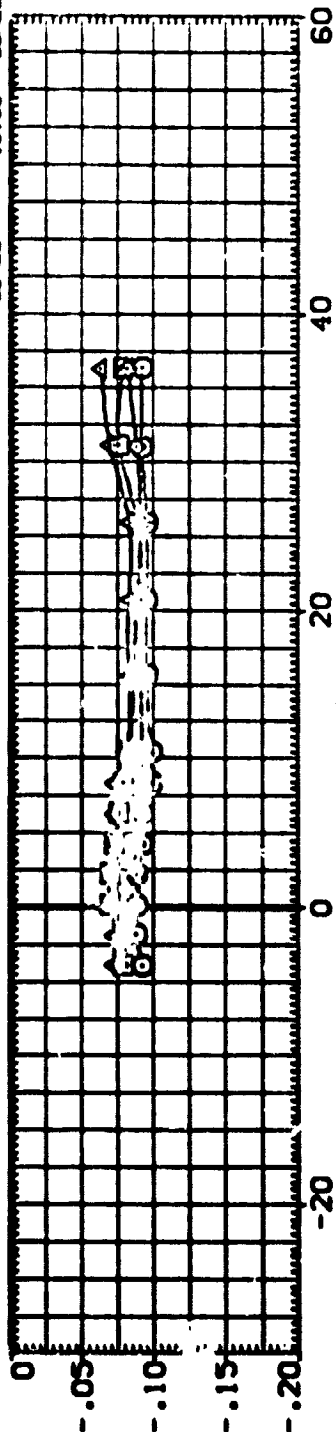


CP81

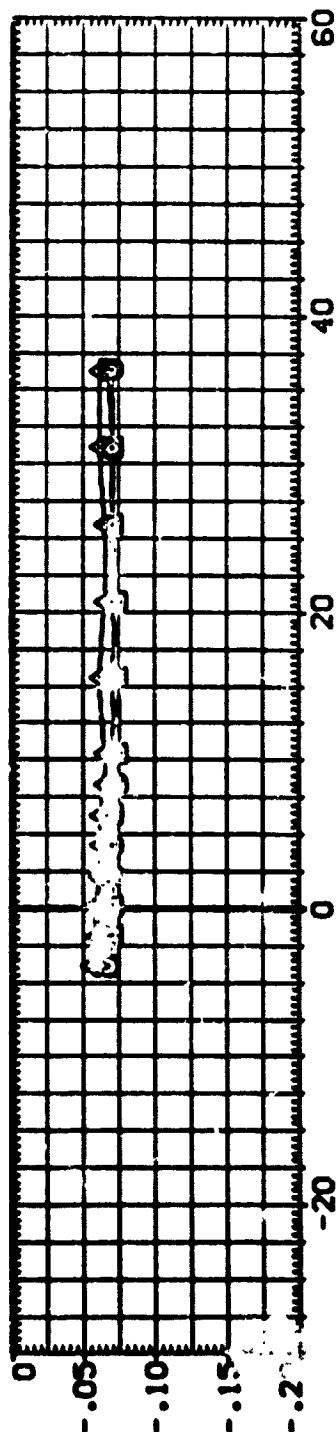
FIG. 6 STING AND NOZZLE TARES

(A)MACH = 2.50

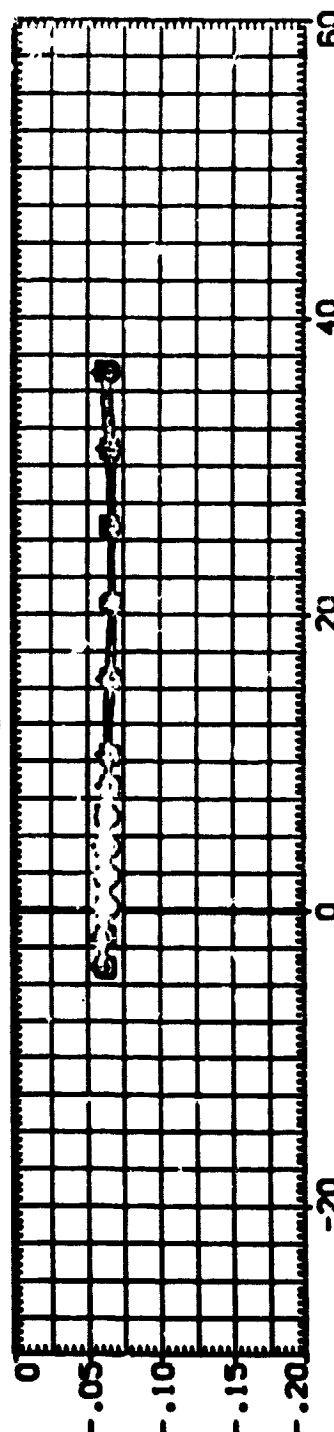
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BDLAP	SPOBOK	ELEVON	REFERENCE INFORMATION
{A02104}	0A-203 LANC UPVT 1057 140 A/B 058 0JUMPY STING	.000	16.300	54.920	15.000	SREF 2650.0000 SQ.FT.
{A02105}	0A-203 LANC UPVT 1057 140 A/B 053 0JUMPY STING	.000	16.300	54.920	15.000	LREF 1250.3000 INCHES
{A02106}	0A-203 LANC UPVT 1057 140 A/B 058 0JUMPY STING	.000	-11.700	54.920	-40.000	BREF 935.0000 INCHES
						XREF 1076.7000 INCHES
						YREF .0000 INCHES
						ZREF 375.0000 INCHES
						SCALE .0150



CP83



CP82

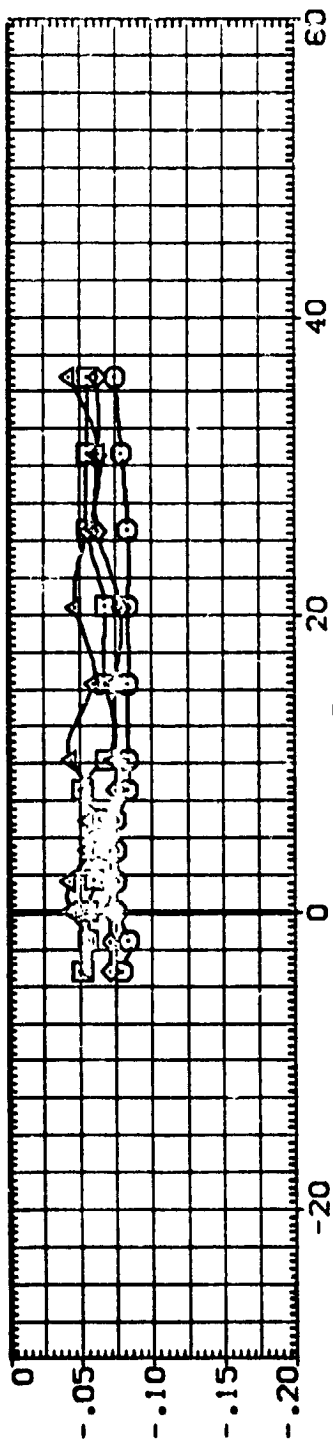


CP81

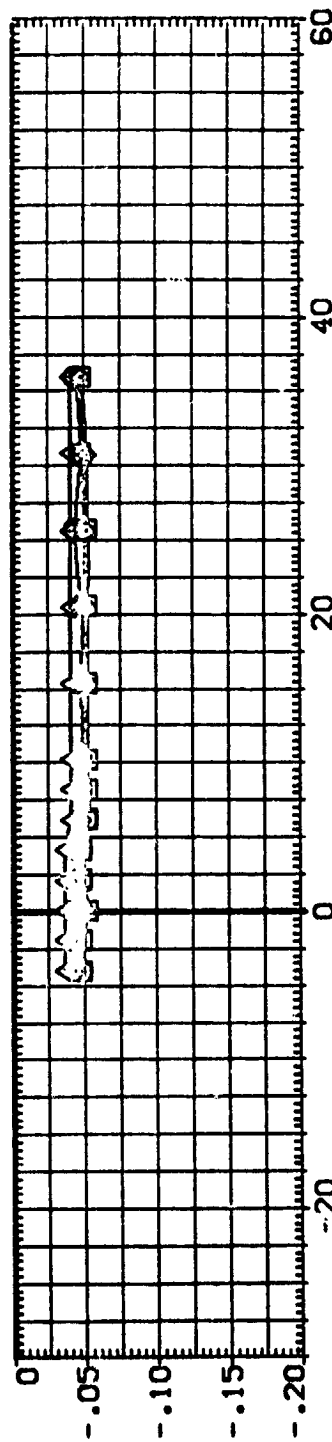
FIG. 6 STING AND NOZZLE TARES

(B)MACH = 3.95

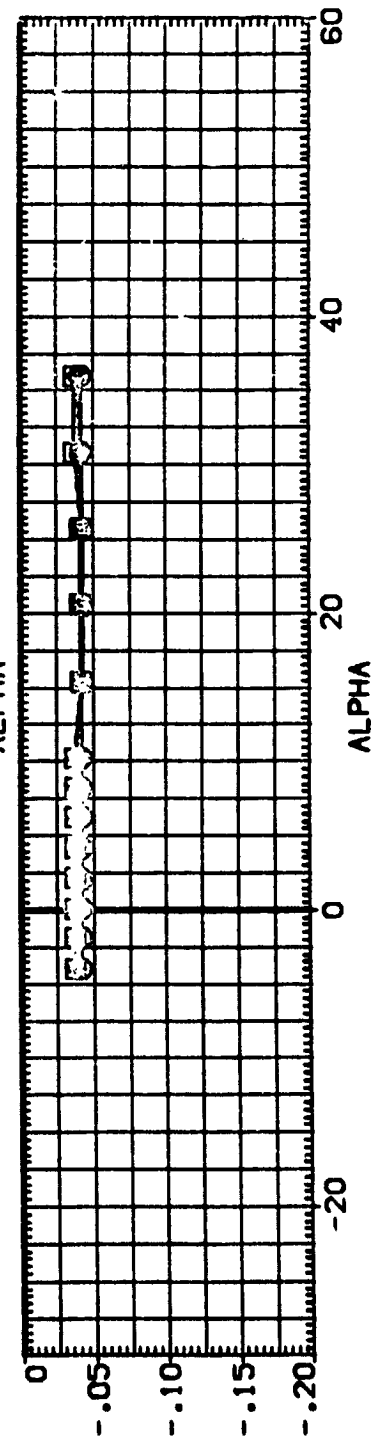
DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BDLAP	SPDBRK	ELEVON	REFERENCE INFORMATION
{A02104}	0A-208 LARC UPVT 1057 140 A/B 058 +0.000 STING	.000	16.300	54.920	15.000	SREF 2690.0000 SQ.FT.
{A02105}	0A-208 LARC UPVT 1057 140 A/B 058 +0.000 STING	.000	16.300	54.920	15.000	LREF 1290.0000 INCH-ES
{A02106}	0A-208 LARC UPVT 1057 140 A/B 058 +0.000 STING	.000	11.700	54.920	-40.000	SREF 936.0000 INCH-ES
		.000	-11.700	54.920	-40.000	XREF 1076.7000 INCH-ES
						YREF .0000 INCH-ES
						ZREF .0000 INCH-ES
						SCALE .0150



CPB3



CPB2



CPB1

FIG. 6 STING AND NOZZLE TARES

(C)MACH = 4.63

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BDLAP	SPOBRK	ELEVON	REFERENCE INFORMATION
[R02101]	DA-208 LARC UPVT 1097 140 A/B DBB +DUPPY STING	.000	-11.700	54.920	.000	SREF 2690.0000 50.FT.
[R02102]	DA-208 LARC UPVT 1097 140 A/B DBB +DUPPY STING	3.000	-11.700	54.920	.000	LREF 1290.3000 INCHES
[R02107]	DA-208 LARC UPVT 1097 140 A/B DBB	.000	-11.700	54.920	.000	BREF 936.6000 INCHES
[R02108]	DA-208 LARC UPVT 1097 140 A/B DBB	3.000	-11.700	54.920	.000	XMRP 1076.7000 INCHES
						YMRP .0000 INCHES
						ZMRP 375.0000 INCHES
						SCALE .0150 SCALE

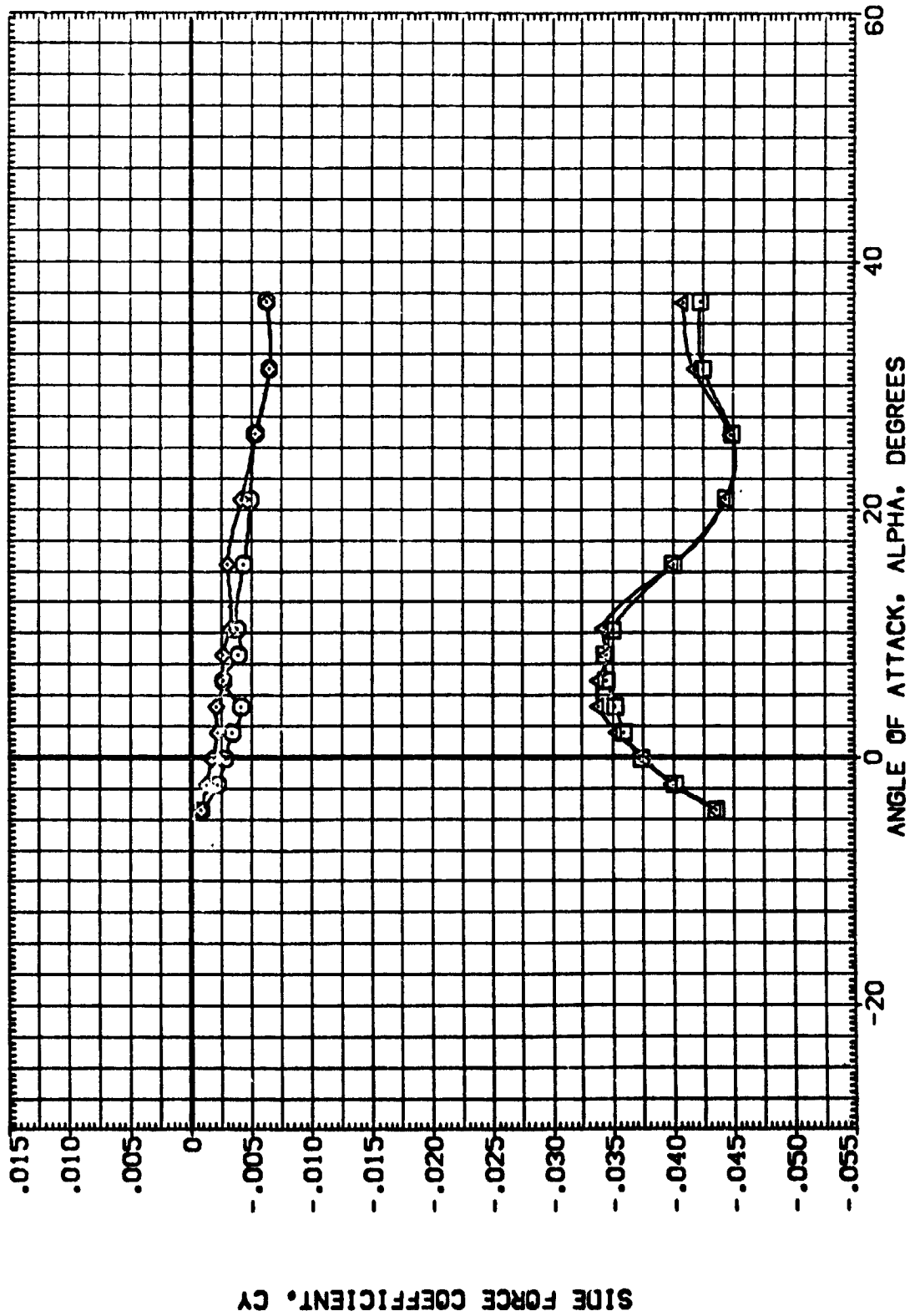


FIG. 7 LATERAL-DIRECTIONAL DATA

(A)MACH = 2.50



DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BOFLAP	SPDRK	ELEVON	REFERENCE INFORMATION
[R02101]	GA-208 LARC UPVT 1057 140 A/B 058 + DUMMY STING	.000	-11.700	54.920	.000	SREF 2690.0000 SQ.FT.
[R02102]	GA-208 LARC UPVT 1057 140 A/B 058 + DUMMY STING	3.000	-11.700	54.920	.000	LREF 1290.3000 INCHES
[R02107]	GA-208 LARC UPVT 1057 140 A/B 058	.000	-11.700	54.920	.000	BREF 936.6900 INCHES
[R02108]	GA-208 LARC UPVT 1057 140 A/B 058	3.000	-11.700	54.920	.000	YMRP 1076.7000 INCHES
						ZMRP .0000 INCHES
						SCALE 375.0000 INCHES
						SCALE .0150

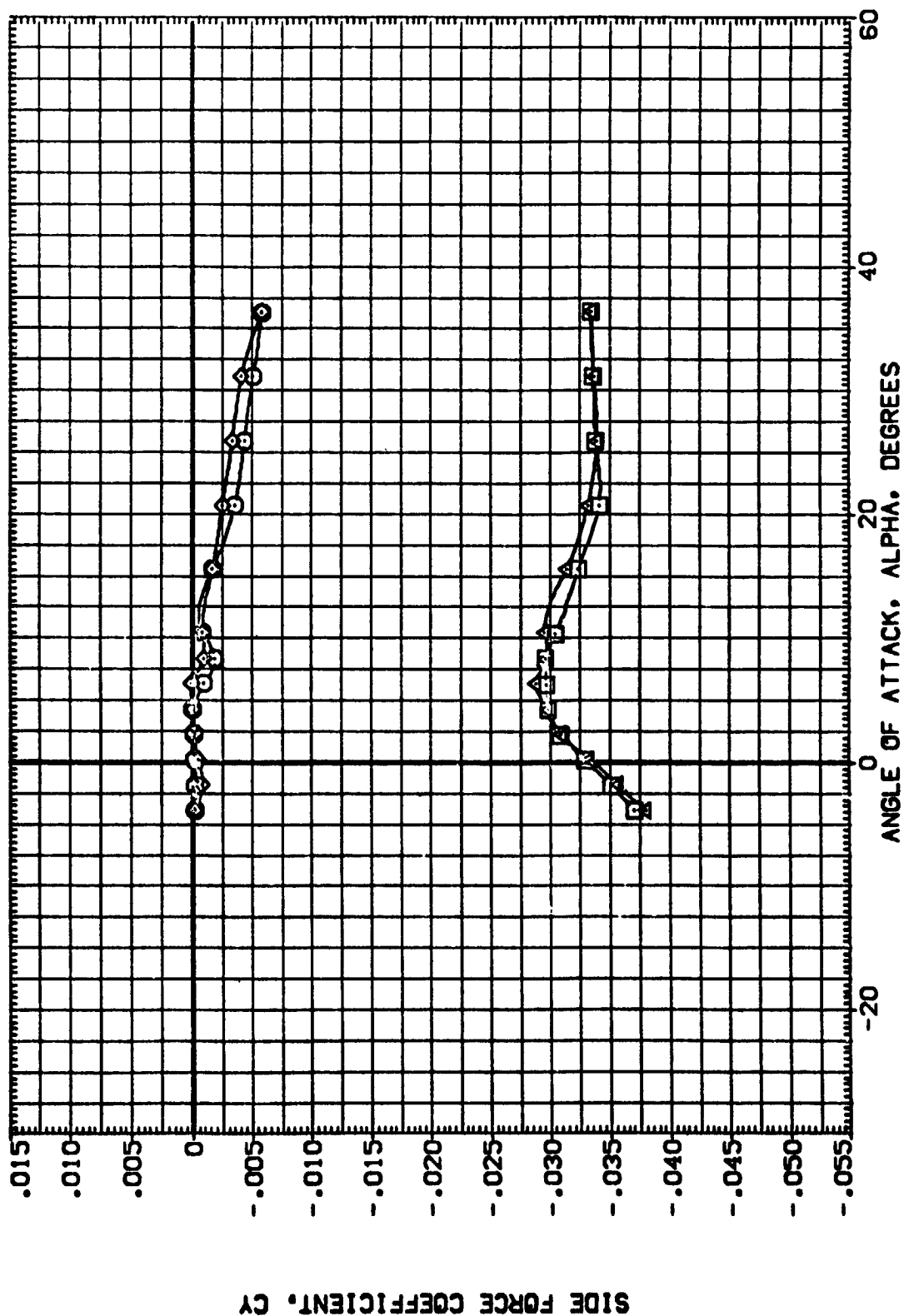


FIG. 7 LATERAL-DIRECTIONAL DATA

(B)MACH = 3.95

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BOFLAP	SPOBRK	ELEVON	REFERENCE INFORMATION
[R02101]	DA-208 LARC UPVT 1057 140 A/B 058 + DUMMY STING	3.000	-11.700	54.520	.000	SREF 2630.0000 SQ.FT.
[R02102]	DA-208 LARC UPVT 1057 140 A/B 058 + DUMMY STING	3.000	-11.700	54.520	.000	LREF 1290.3000 INCHES
[R02107]	DA-208 LARC UPVT 1057 140 A/B 058	3.000	-11.700	54.520	.000	BREF 935.6000 INCHES
[R02108]	DA-208 LARC UPVT 1057 140 A/B 058	3.000	-11.700	54.520	.000	XMRP 1076.7000 INCHES
						YMRP .0000 INCHES
						ZMRP 375.0000 INCHES
						SCALE .0150

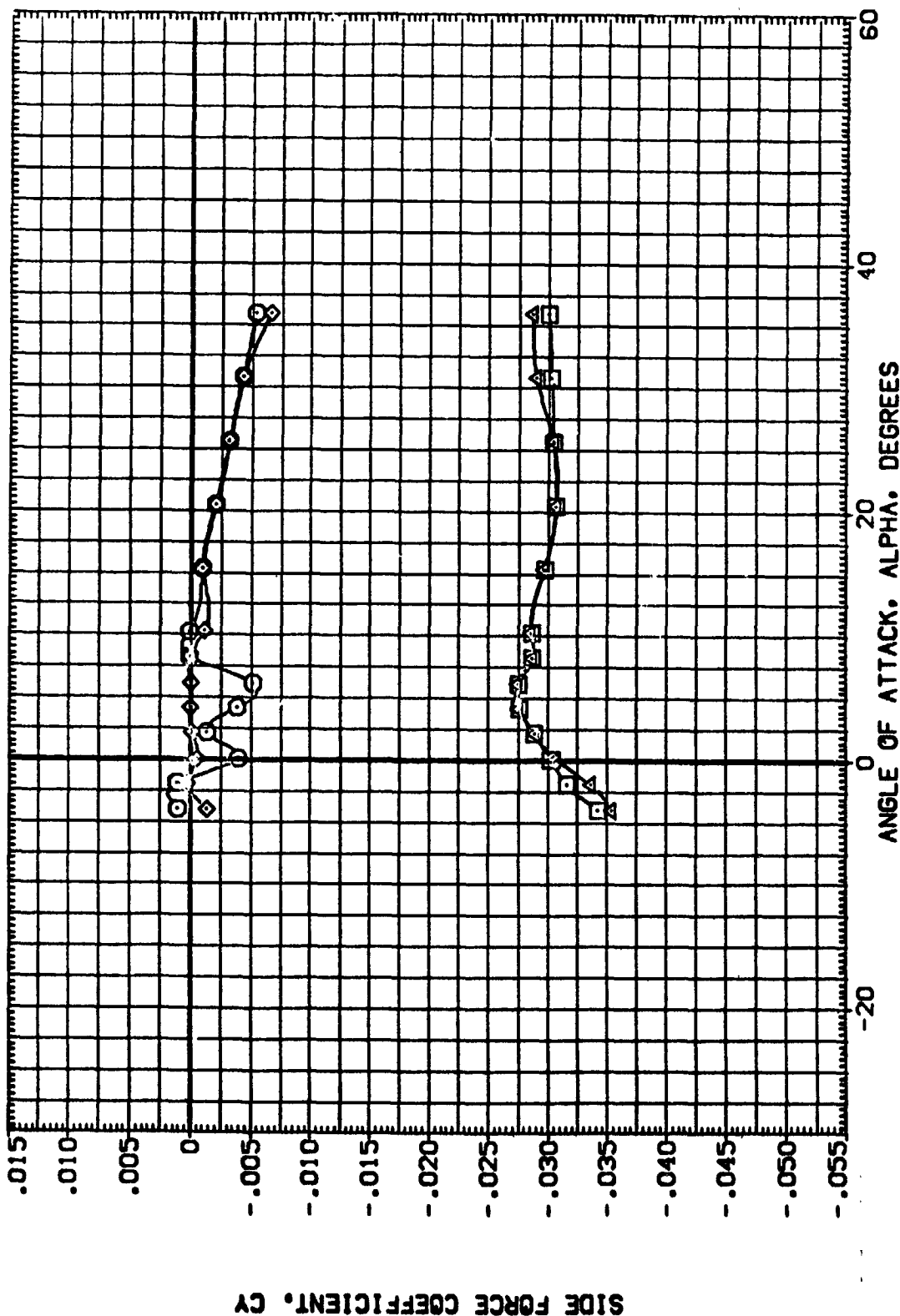


FIG. 7 LATERAL-DIRECTIONAL DATA

(C)MACH = 4.63

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BOFLAP	SPDGRK	ELEVON	REFERENCE INFORMATION
[R02101]	DA-208 LARC UPVT 1097 140 A/B DB8 +DJMY STING	.000	-11.700	54.920	.000	SREF 2690.0000 50. FT.
[R02102]	DA-208 LARC UPVT 1097 140 A/B DB8 +DJMY STING	3.000	-11.700	54.920	.000	LREF 1290.3000 INCHES
[R02107]	DA-208 LARC UPVT 1097 140 A/B DB8	.000	-11.700	54.920	.000	BREF 936.6300 INCHES
[R02108]	DA-208 LARC UPVT 1097 140 A/B DB8	3.000	-11.700	54.920	.000	XREF 1076.7000 INCHES
						YREF .0000 INCHES
						ZREF .0000 INCHES
						SCALE .0150 SCALE

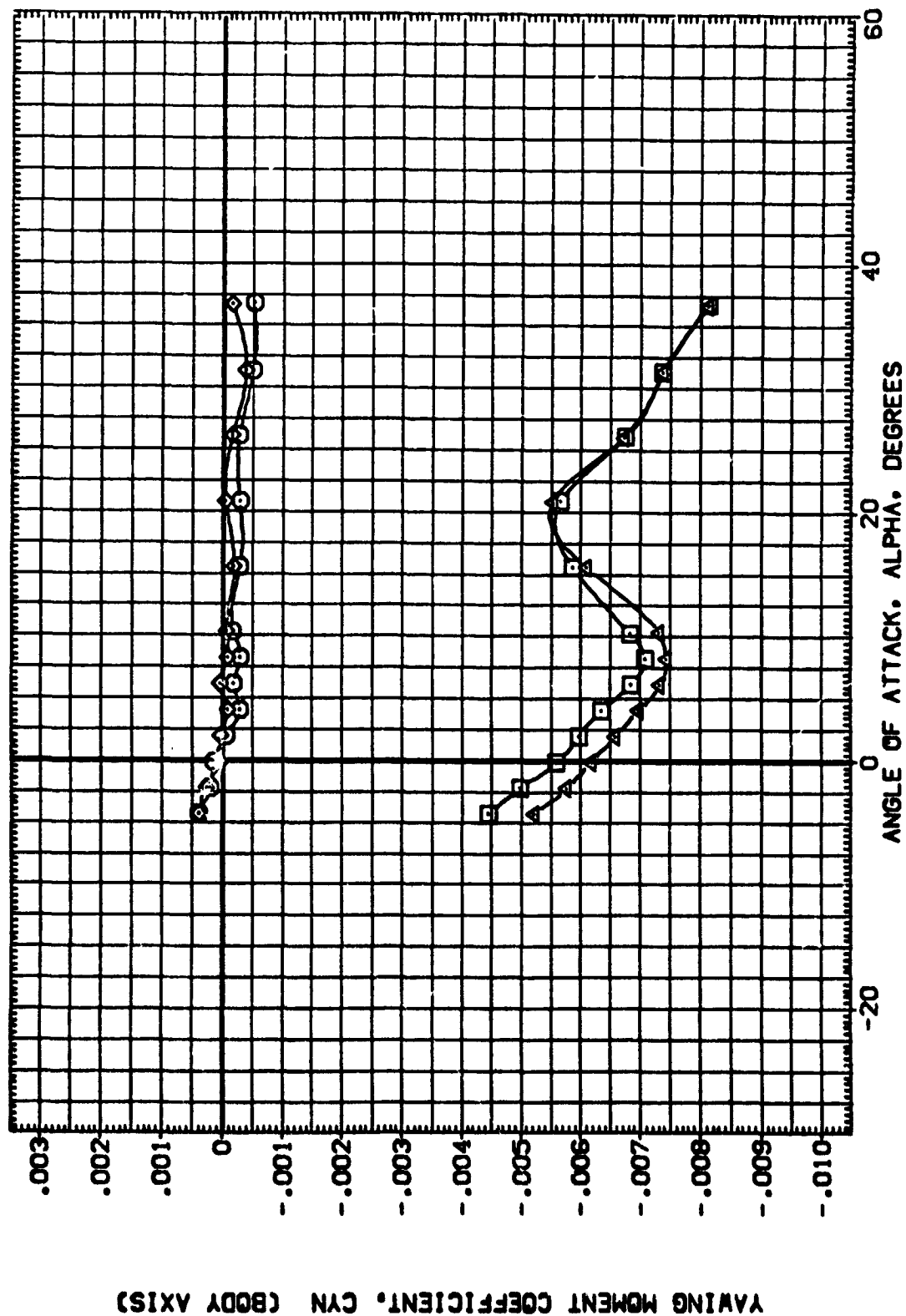


FIG. 7 LATERAL-DIRECTIONAL DATA

(A)MACH = 2.50

DATA SET SHEET. CONFIGURATION DESCRIPTION REFERENCE INFORMATION

DATA SET	CONFIGURATION DESCRIPTION	BETA	BOFLAP	SPOBRK	ELEVON	REF	INCHES
0A-208 LARC UPVT 1057 140 A/B 5/8	+DUPV STING	.000	-11.700	54.920	.000	SREF	2690.0000
0A-208 LARC UPVT 1057 140 A/B 5/8	+DUPV STING	3.000	-11.700	54.920	.000	LREF	1290.3000
0A-208 LARC UPVT 1057 140 A/B 5/8		.000	-11.700	54.920	.000	BREF	536.6300
0A-208 LARC UPVT 1057 140 A/B 5/8		3.000	-11.700	54.920	.000	YMRP	1076.7000
						ZMRP	.0000
						SCALE	375.0000
							.0150

YAWING MOMENT COEFFICIENT, CYN (BODY AXIS)

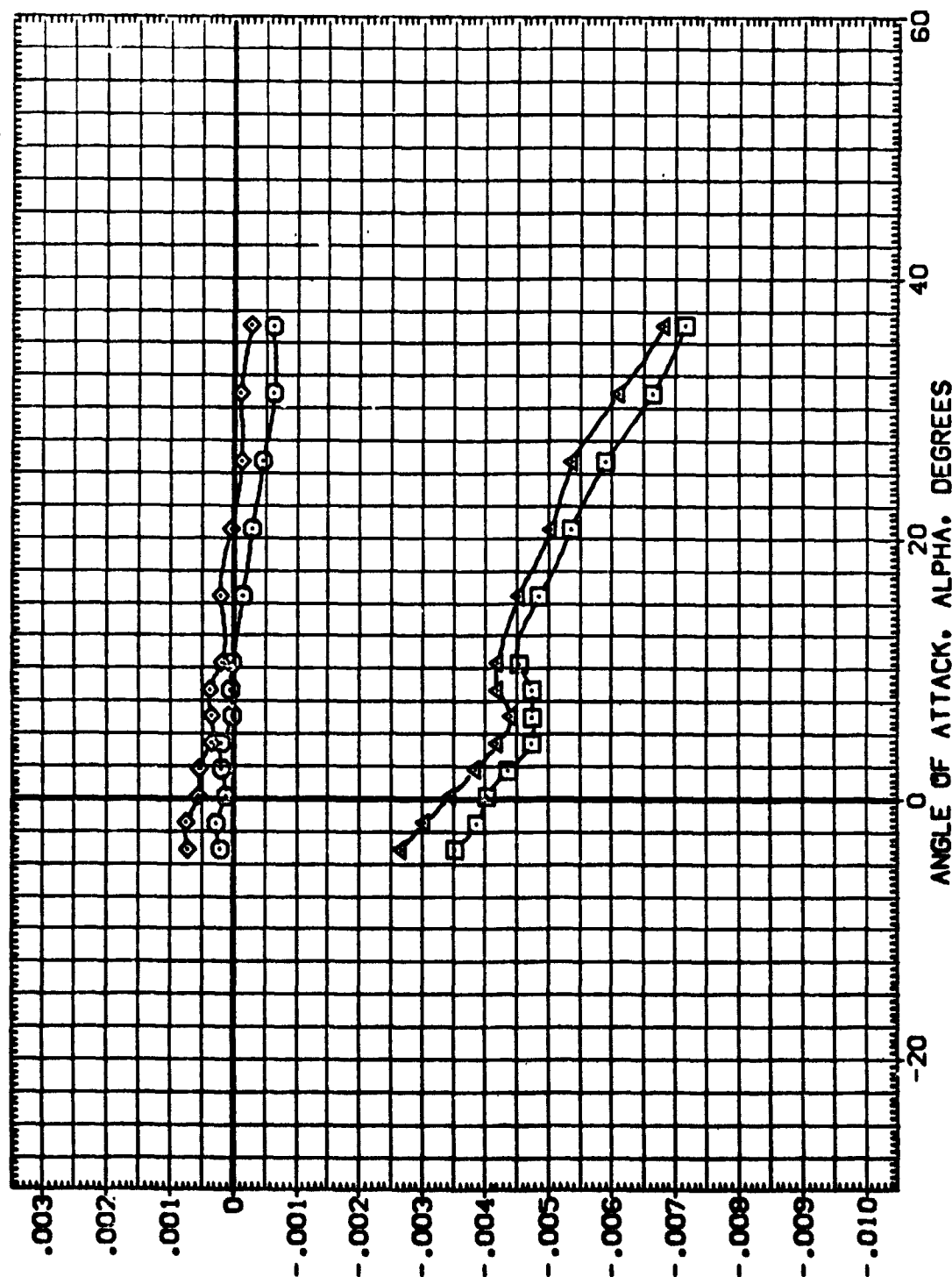


FIG. 7 LATERAL-DIRECTIONAL DATA

(B)MACH = 3.95

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BDFLAP	SPODBK	ELEVON	REFERENCE INFORMATION
{R02101}	0A-208 LARC UPVT 1057 140 A/B 008	.000	-11.700	54.520	.000	SREF 2690.0000 SQ.FT.
{R02102}	0A-208 LARC UPVT 1057 140 A/B 008	3.000	-11.700	54.520	.000	LREF 1290.3000 INCHES
{R02107}	0A-208 LARC UPVT 1057 140 A/B 008	.000	-11.700	54.520	.000	BREF 926.6300 INCHES
{R02108}	0A-208 LARC UPVT 1057 140 A/B 008	3.000	-11.700	54.520	.000	YREF 1076.7000 INCHES
						ZREF .0000 INCHES
						SCALE 375.0000 INCHES
						SCALE .0150

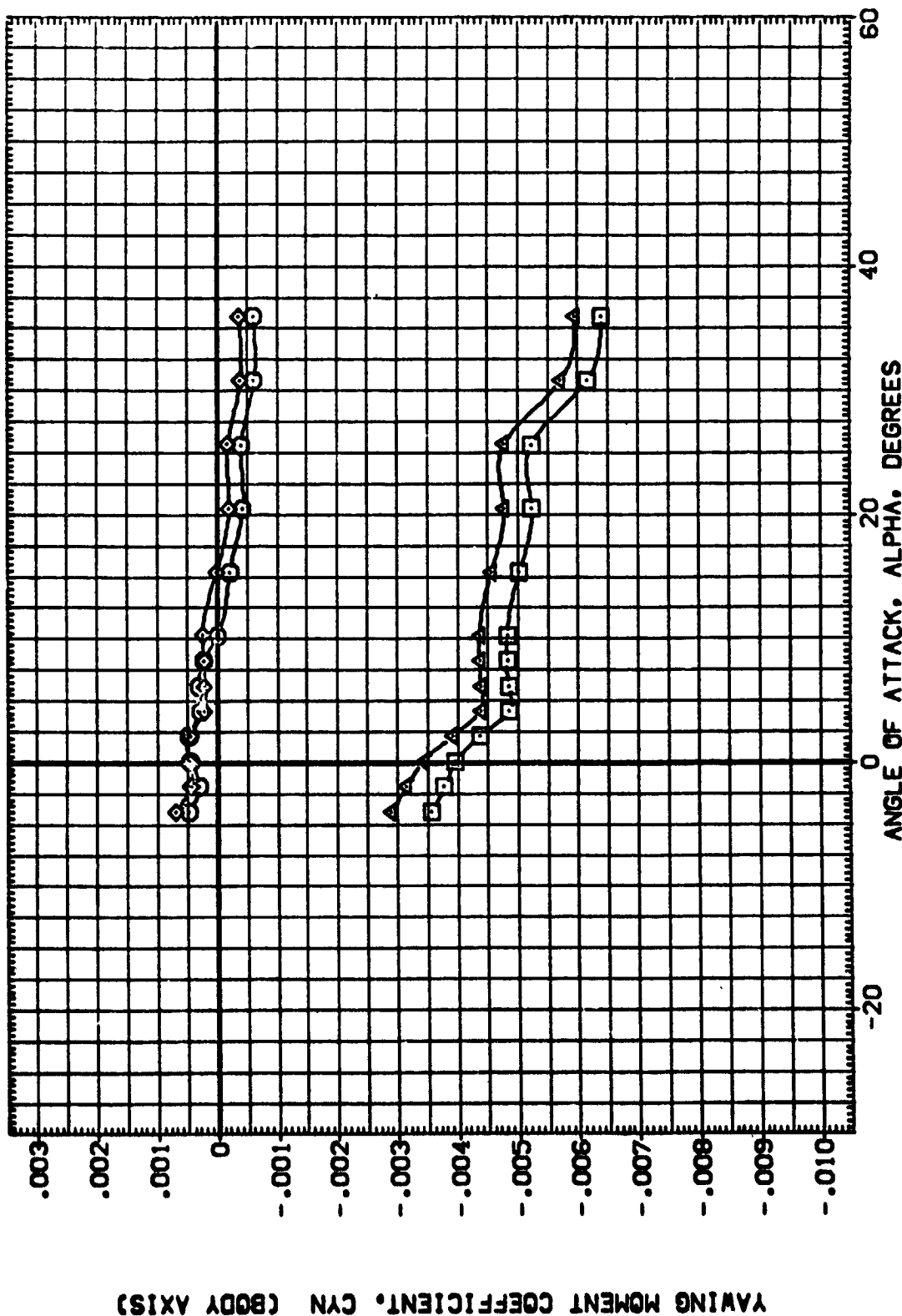


FIG. 7 LATERAL-DIRECTIONAL DATA

(C)MACH = 4.63

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BDFLAP	SPOBRK	ELEVON	REFERENCE INFORMATION
[R02101]	GA-208 LARC UPVT 1087 140 A/B 578	.000	-11.700	54.920	.000	SREF 2630.0000 SQ.FT.
[R02102]	GA-208 LARC UPVT 1087 140 A/B 578	3.000	-11.700	54.920	.000	LREF 1280.3000 INO-ES
[R02107]	GA-208 LARC UPVT 1087 140 A/B 578	.000	-11.700	54.920	.000	BREF 936.6300 INO-ES
[R02108]	GA-208 LARC UPVT 1087 140 A/B 578	3.000	-11.700	54.920	.000	XREF 1076.7000 INO-ES
						YREF .0000 INO-ES
						ZREF 375.0000 INO-ES
						SCALE .0150

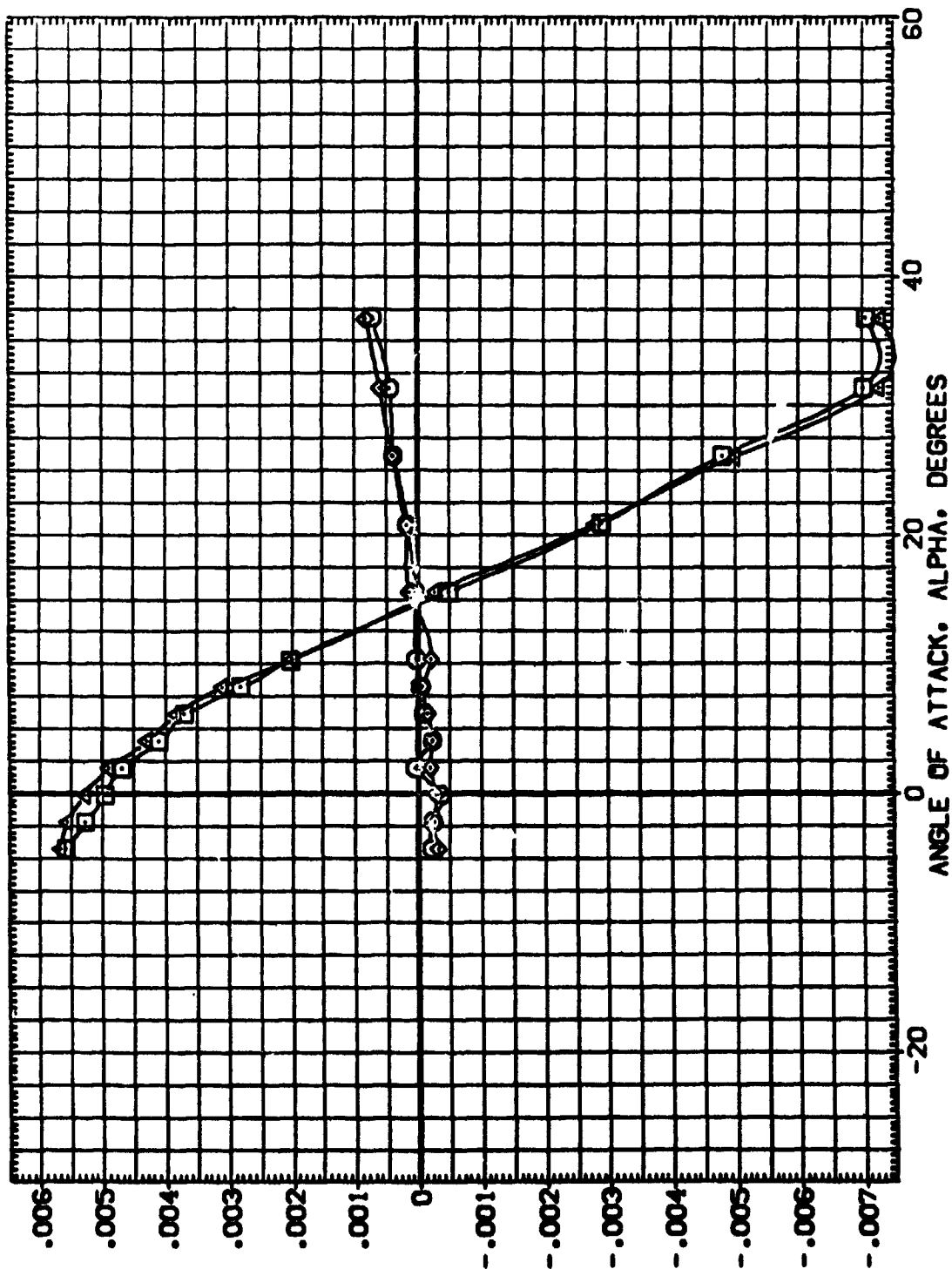


FIG. 7 LATERAL-DIRECTIONAL DATA
(MACH = 2.50)

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BD FLAP	SPORCK	ELEVON	REFERENCE INFORMATION
{R02101}	0A-208 LARC UPVT 1057 140 A/B 0/8	.000	-11.700	54.520	.000	SREF 2690.0000 SQ.FT.
{R02102}	0A-208 LARC UPVT 1057 140 A/B 0/8	3.000	-11.700	54.520	.000	LREF 1290.3000 INCHES
{R02107}	0A-208 LARC UPVT 1057 140 A/B 0/8	.000	-11.700	54.520	.000	BREF 936.6000 INCHES
{R02108}	0A-208 LARC UPVT 1057 140 A/B 0/8	3.000	-11.700	54.520	.000	XREF 1076.7000 INCHES
						YREF 375.0000 INCHES
						SCALE .0150

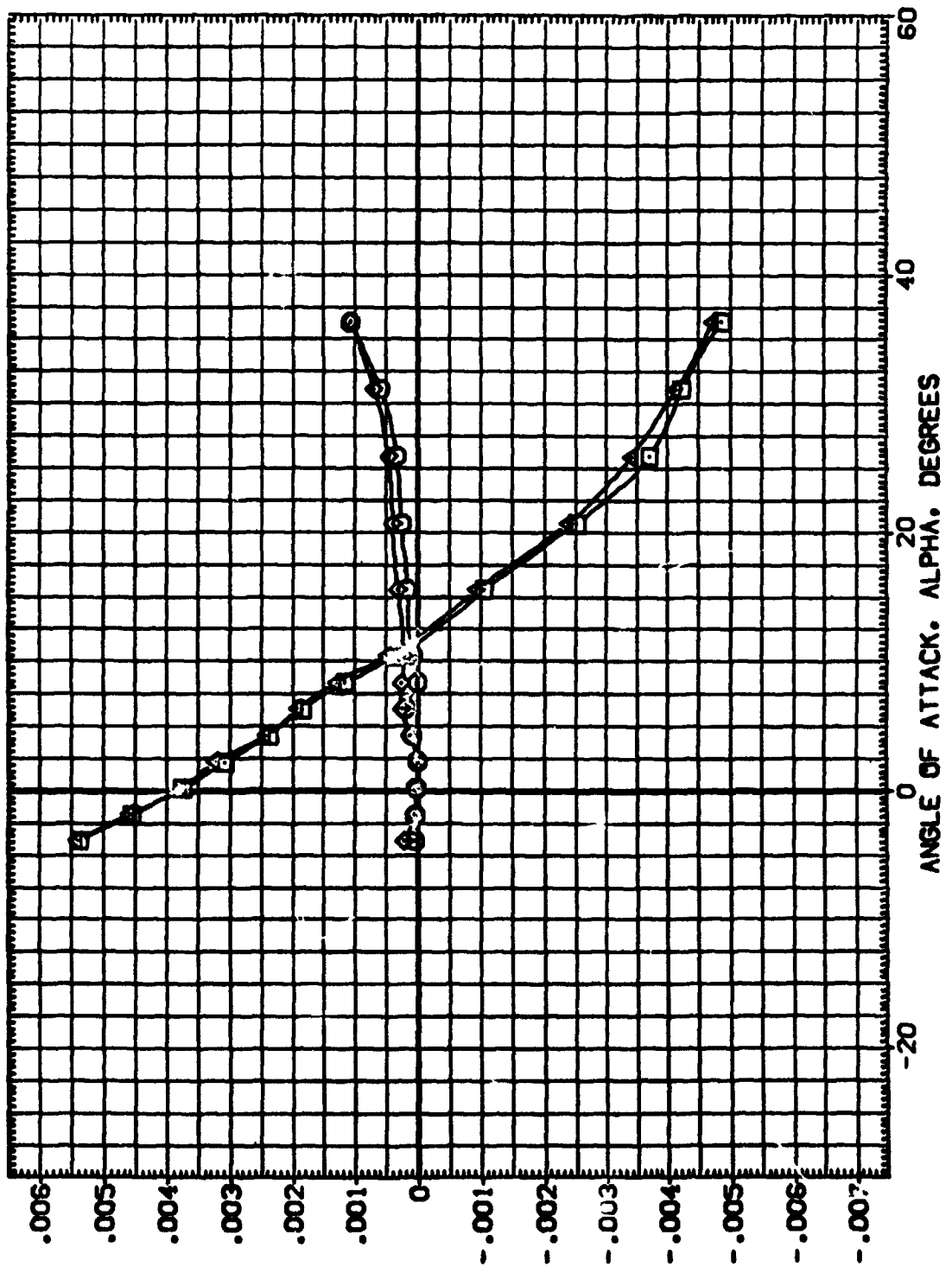


FIG. 7 LATERAL-DIRECTIONAL DATA

(B)MACH = 3.95



ROLLING MOMENT COEFFICIENT, CBL (BODY AXIS)

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	BETA	BOFLAP	SPDRBK	ELEVON	REFERENCE INFORMATION
(RQ2101)	DA-208 LARC UPVT 1057 140 A/B DBB	.000	-.700	54.920	.000	SREF 2680.0000 SQ.FT.
(RQ2102)	DA-208 LARC UPVT 1057 140 A/B DBB	3.000	-.700	54.920	.000	LREF 1290.3000 INCHES
(RQ2107)	DA-208 LARC UPVT 1057 140 A/B DBB	.000	-.700	54.920	.000	BREF 933.6500 INCHES
(RQ2108)	DA-208 LARC UPVT 1057 140 A/B DBB	3.000	-.700	54.920	.000	YARP 1076.7000 INCHES
						ZARP .0000 INCHES
						SCALE 375.0000
						SCALE .0150

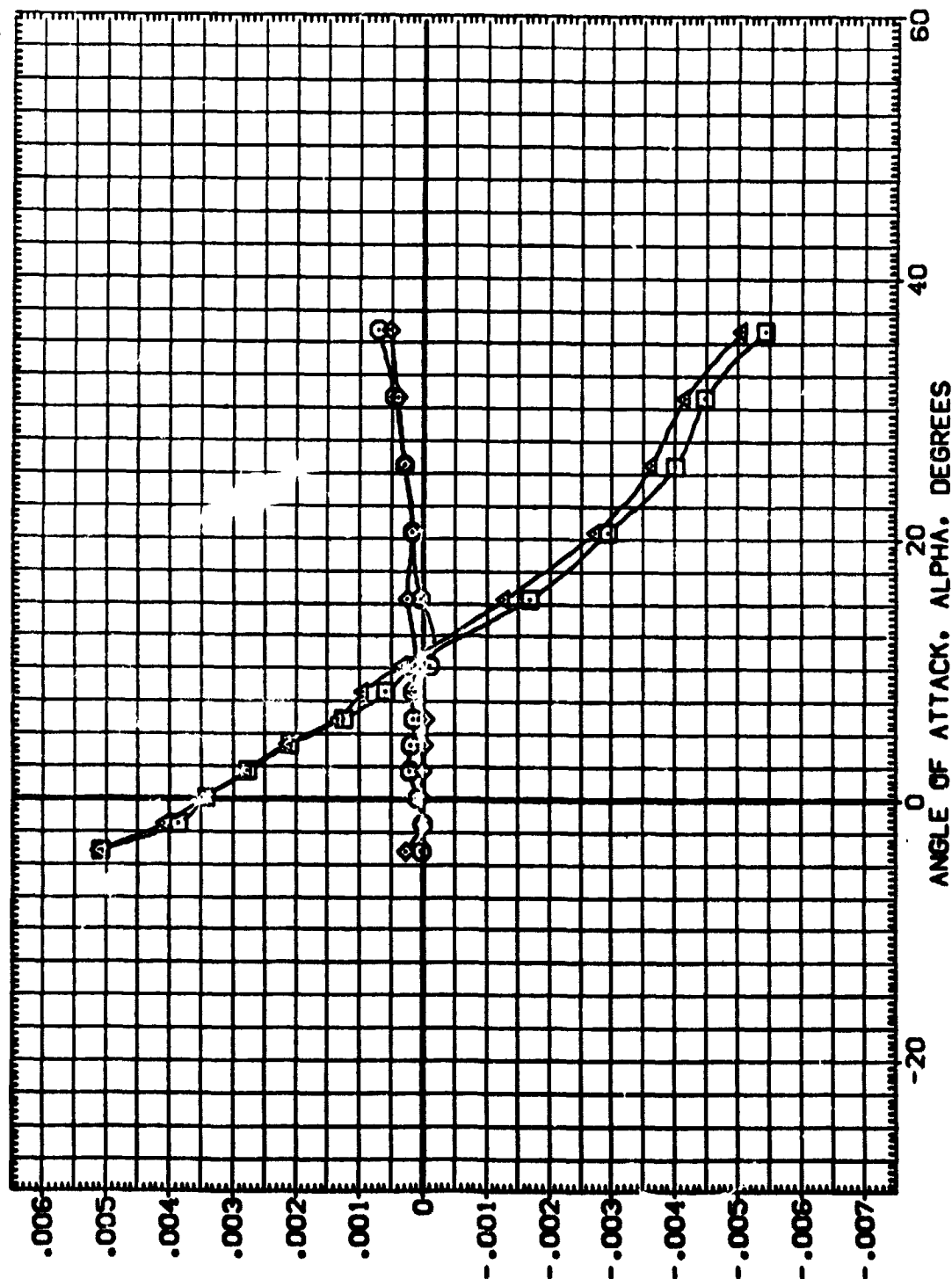


FIG. 7 LATERAL-DIRECTIONAL DATA

(C)MACH = 4.63

DATA SET SYMBOL: 14021021
 CONFIGURATION DESCRIPTION: DA-208 LARC UPVT 1087 140 A/B ORB
 REFERENCE INFORMATION: SREF 2690.0000 SO.FT.
 LREF 1290.3000 INCHES
 BREF 936.6800 INCHES
 XMRP 1076.7000 INCHES
 YMRP .0000 INCHES
 ZMRP 375.0000 INCHES
 SCALE .0150 SCALE

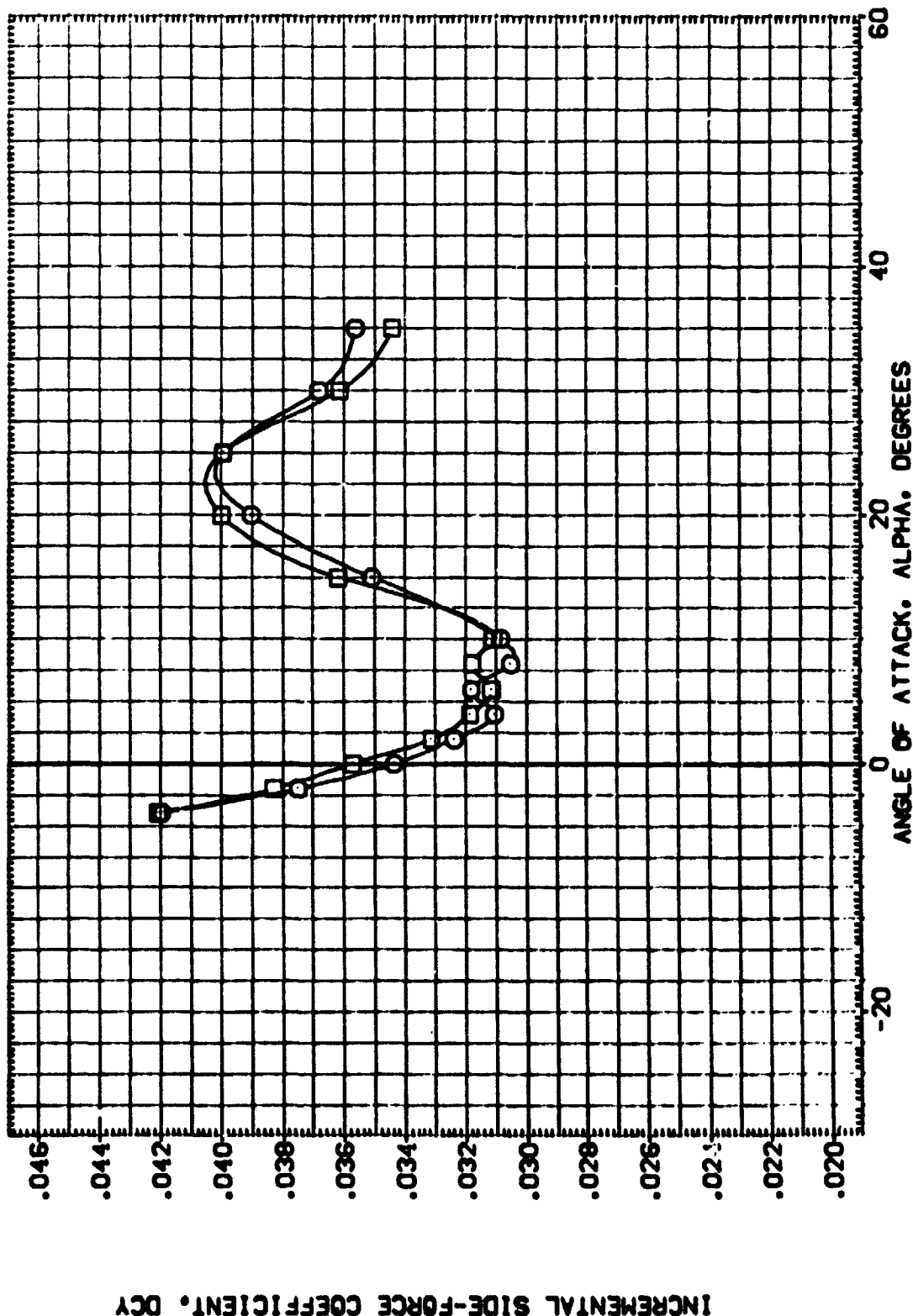


FIG. 7 LATERAL-DIRECTIONAL DATA

(A)MACH = 2.50

DATA SET SYMBOL: 01-208 LANE UPVT 1087 140 A/B 088 01-208 LANE UPVT 1087 140 A/B 088

CONFIRMATION DESCRIPTION: 01-208 LANE UPVT 1087 140 A/B 088 01-208 LANE UPVT 1087 140 A/B 088

REFERENCE INFORMATION:

REF	REF	REF	REF	REF	REF
SREF	2690.0000	50.00	50.00	50.00	50.00
LREF	1290.0000	INC-ES	INC-ES	INC-ES	INC-ES
BREF	536.8800	INC-ES	INC-ES	INC-ES	INC-ES
YREF	1076.7000	INC-ES	INC-ES	INC-ES	INC-ES
ZREF	375.0000	INC-ES	INC-ES	INC-ES	INC-ES
SCALE	.0150	SCALE	SCALE	SCALE	SCALE

DETAILED DATA:

DETA	BOFLAP	SPOBRK	ELEVON
-3.000	-11.700	54.920	.000
-3.000	-11.700	54.920	.000

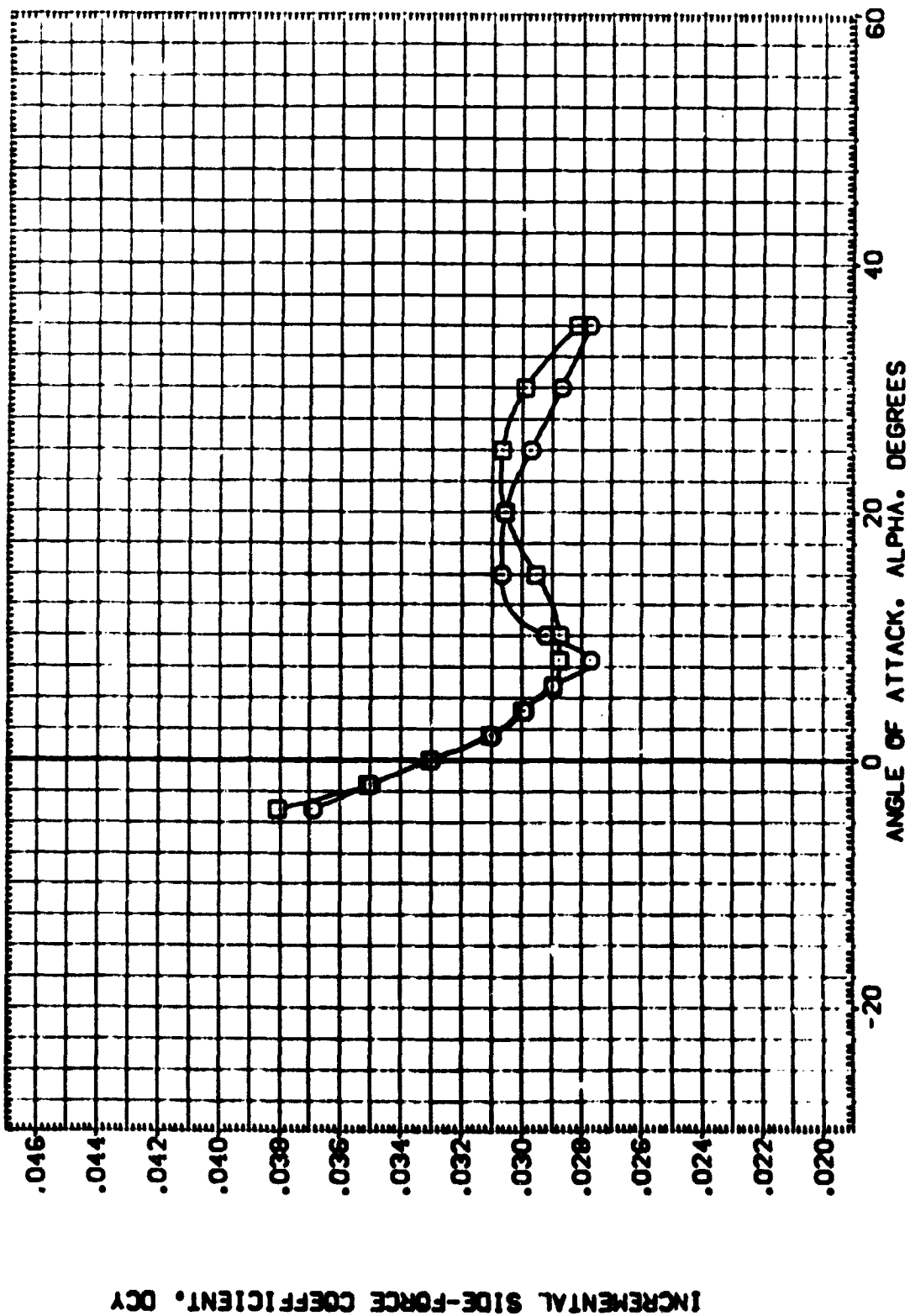


FIG. 7 LATERAL-DIRECTIONAL DATA

(B)MACH = 3.95

DATA SET 0000	CONFIGURATION DESCRIPTION	BETA	BOFLAP	SPOONK	ELEVON	REFERENCE INFORMATION
{002102}	0A-308 LAKE UPVT 1087 140 A/B 008	-3.000	-11.700	54.520	.000	SREF 2000.0000
{002107}	0A-308 LAKE UPVT 1087 140 A/B 008	-3.000	-11.700	54.520	.000	LSREF 1200.3000
						LSREF 320.8800
						YREF 1076.7000
						YREF .0000
						ZREF 375.0000
						SCALE .0150
						SCALE

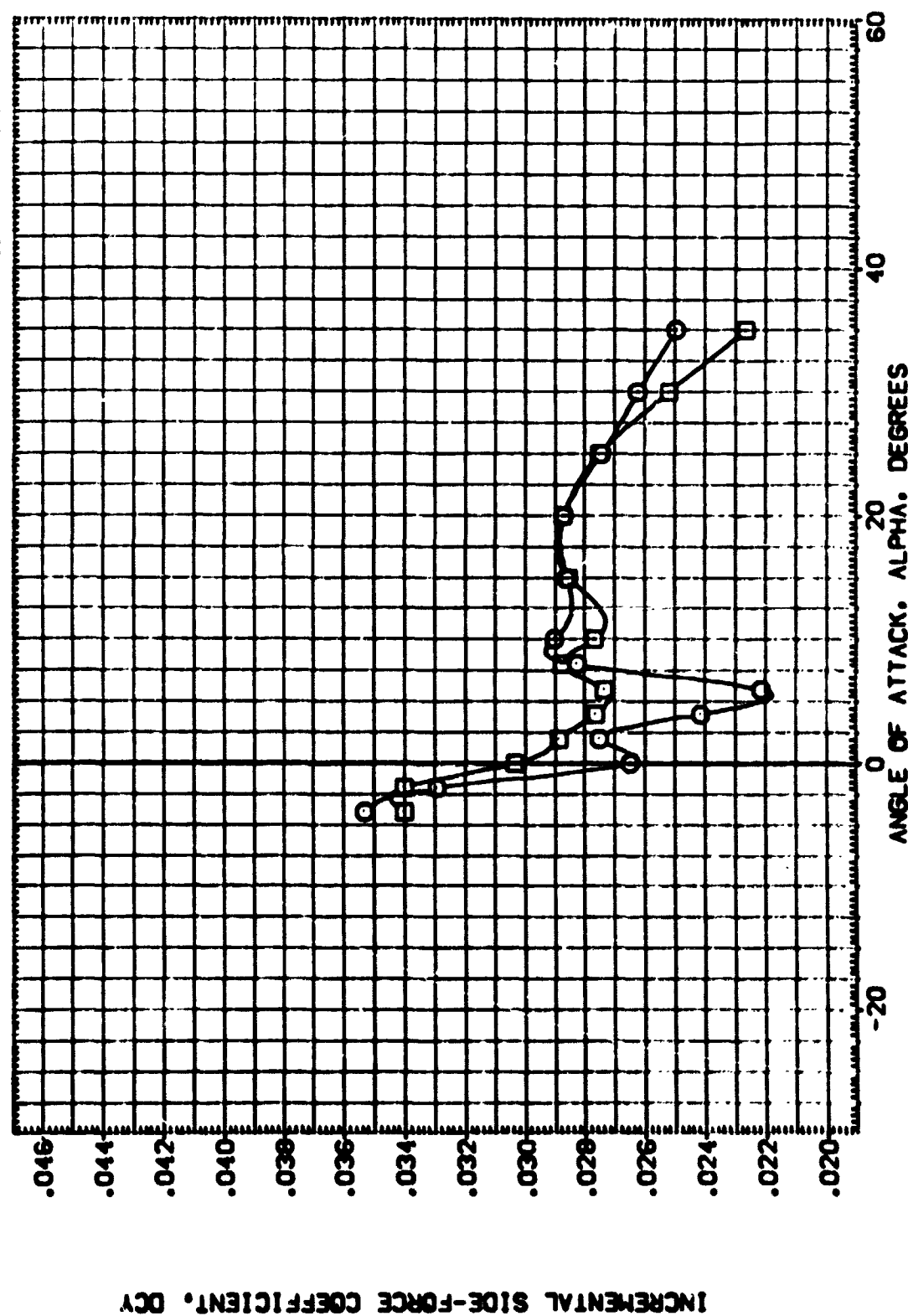


FIG. 7 LATERAL-DIRECTIONAL DATA

(C)MACH = 4.63

INCREMENTAL YAWING-MOMENT COEFFICIENT, DCYN



DATA SET SYMBOL	CONF:GURATION DESCRIPTION	DBETA	BDFLAP	SPOBRK	ELEVON	REFERENCE INFORMATION
{K02102}	0A-208 LARC UPVT 1097 140 A/B 098 +DUPPY STING	-3.000	-11.700	54.920	.000	SREF 2690.0000 SQ.FT.
{K02107}	0A-208 LARC UPVT 1097 140 A/B 098	-3.000	-11.700	54.920	.000	LREF 1290.3000 INCHES
						BRF 936.6800 INCHES
						YMRP 1076.7000 INCHES
						ZMRP 375.0000 INCHES
						SCALE .0150

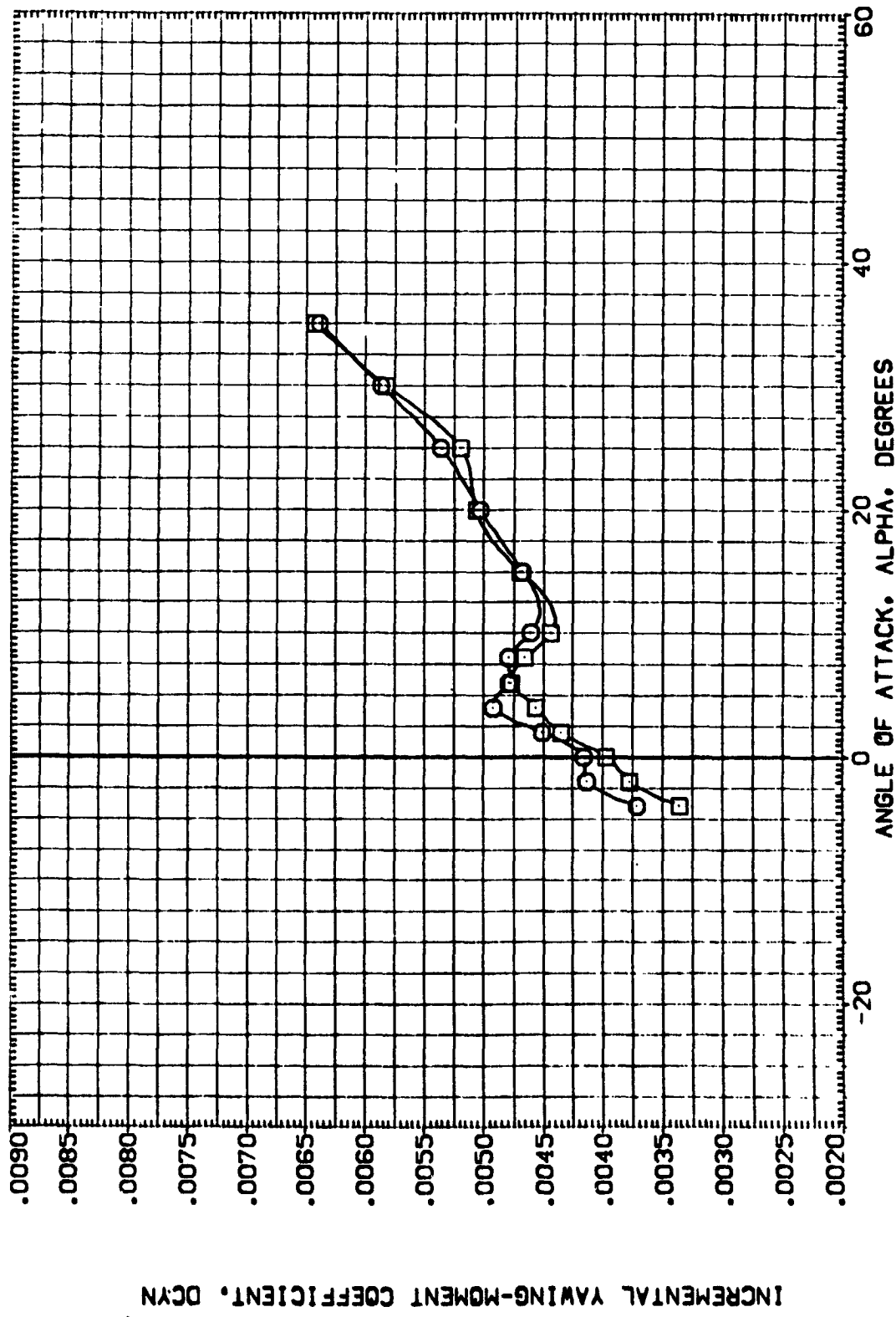


FIG. 7 LATERAL-DIRECTIONAL DATA

(B)MACH = 3.95

DATA SET SYMBOL: [K02102] [K02107] CONFIGURATION DESCRIPTION: 0A-208 LARC UPVT 1097 140 A/B 098 +DUMMY STING 0A-208 LARC UPVT 1097 140 A/B 098

DBETA	BOFLAP	SPOBRK	ELEVON	REFERENCE INFORMATION
-3.000	-11.700	54.920	.000	SREF 2690.0000 SQ.FT.
-3.000	-11.700	54.920	.000	LREF 1290.3000 INCHES
				BREF 936.6800 INCHES
				YMRP 1076.7000 INCHES
				ZMRP .0000 INCHES
				SCALE 375.0000 INCHES
				SCALE .0150

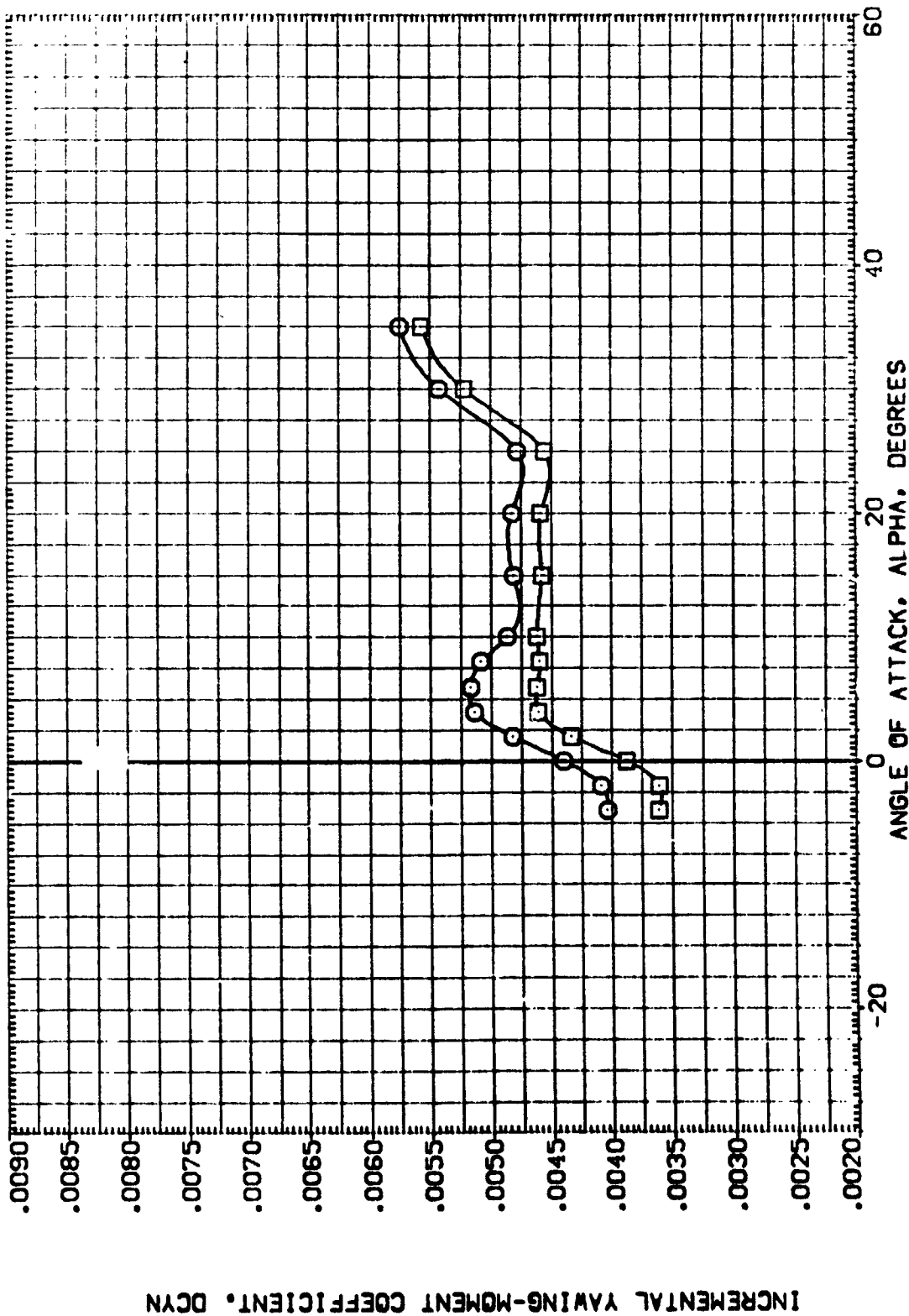


FIG. 7 LATERAL-DIRECTIONAL DATA

(C)MACH = 4.63

DATA SET SYMBOL CONFIGURATION DESCRIPTION DBETA BDFLW SPOBRK ELEVON REFERENCE INFORMATION

[K02102]	0A-208 LARC UPVT 1097 140 A/B 098	-3.000	-11.700	54.920	.000	SREF 2690.0000	50. FT.
[K02107]	0A-208 LARC UPVT 1097 140 A/B 098	-3.000	-11.730	54.920	.000	LREF 1290.3000	INCHES
						BREF 936.6000	INCHES
						XMRP 1076.7000	INCHES
						YMRP .0000	INCHES
						ZMRP 375.0000	INCHES
						SCALE .0150	SCALE

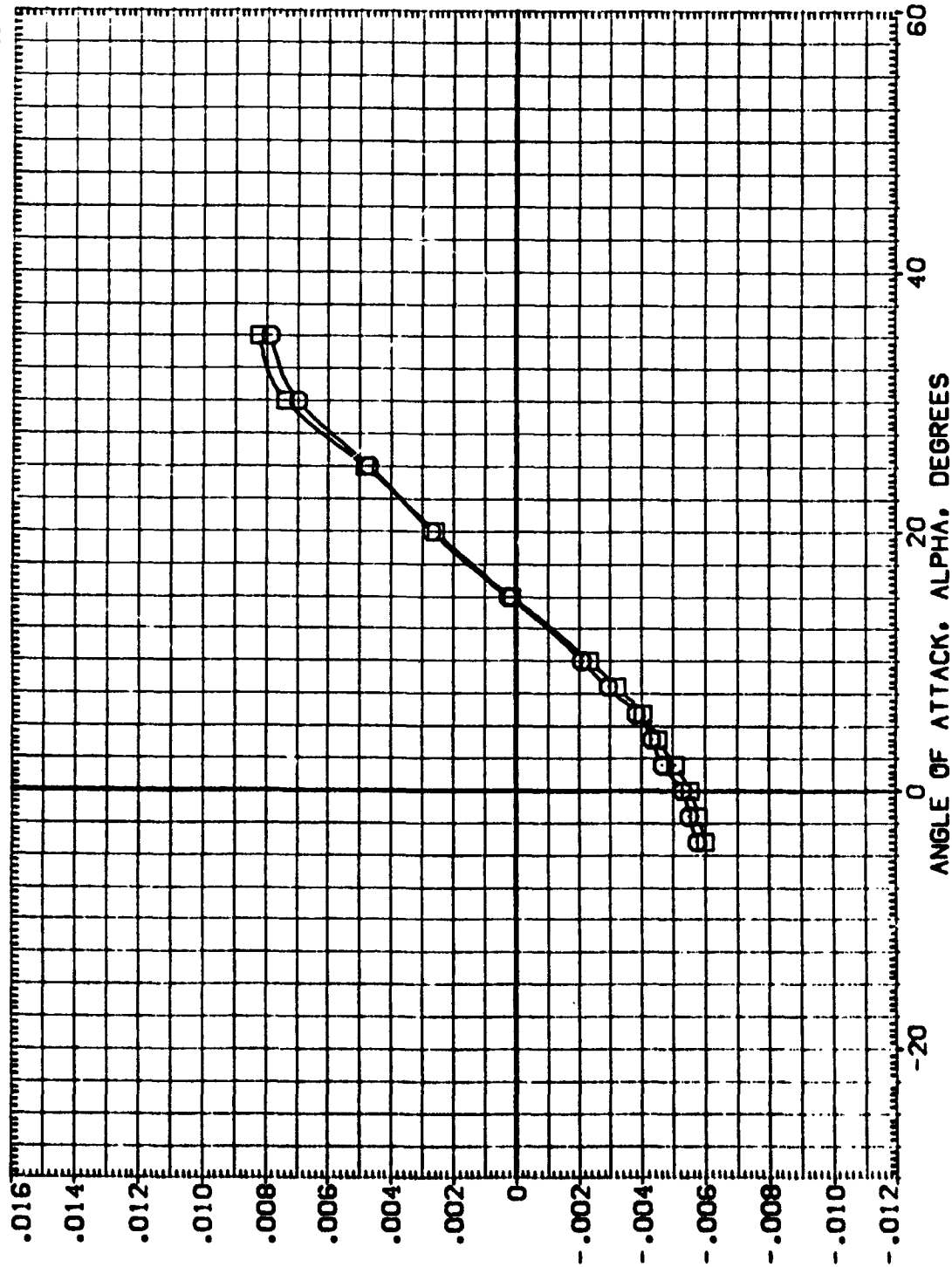


FIG. 7 LATERAL-DIRECTIONAL DATA

(A)MACH = 2.50

DATA SET SYMBOL: 01021021
 CONFIGURATION DESCRIPTION: 01-208 LARC UPVT 1097 140 A/B 098 +DUMMY STING 01-208 LARC UPVT 1097 140 A/B 098
 REFERENCE INFORMATION:
 SREF 2690.0000 50.01
 LREF 1290.3000 INCHES
 BREF 936.6800 INCHES
 XMRP 1076.7000 INCHES
 YMRP .0000 INCHES
 ZMRP 375.0000 INCHES
 SCALE .0150

DBETA BOFLAP SPOBRK ELEVON
 -3.000 -11.700 54.920 .000
 -3.000 -11.700 54.920 .000

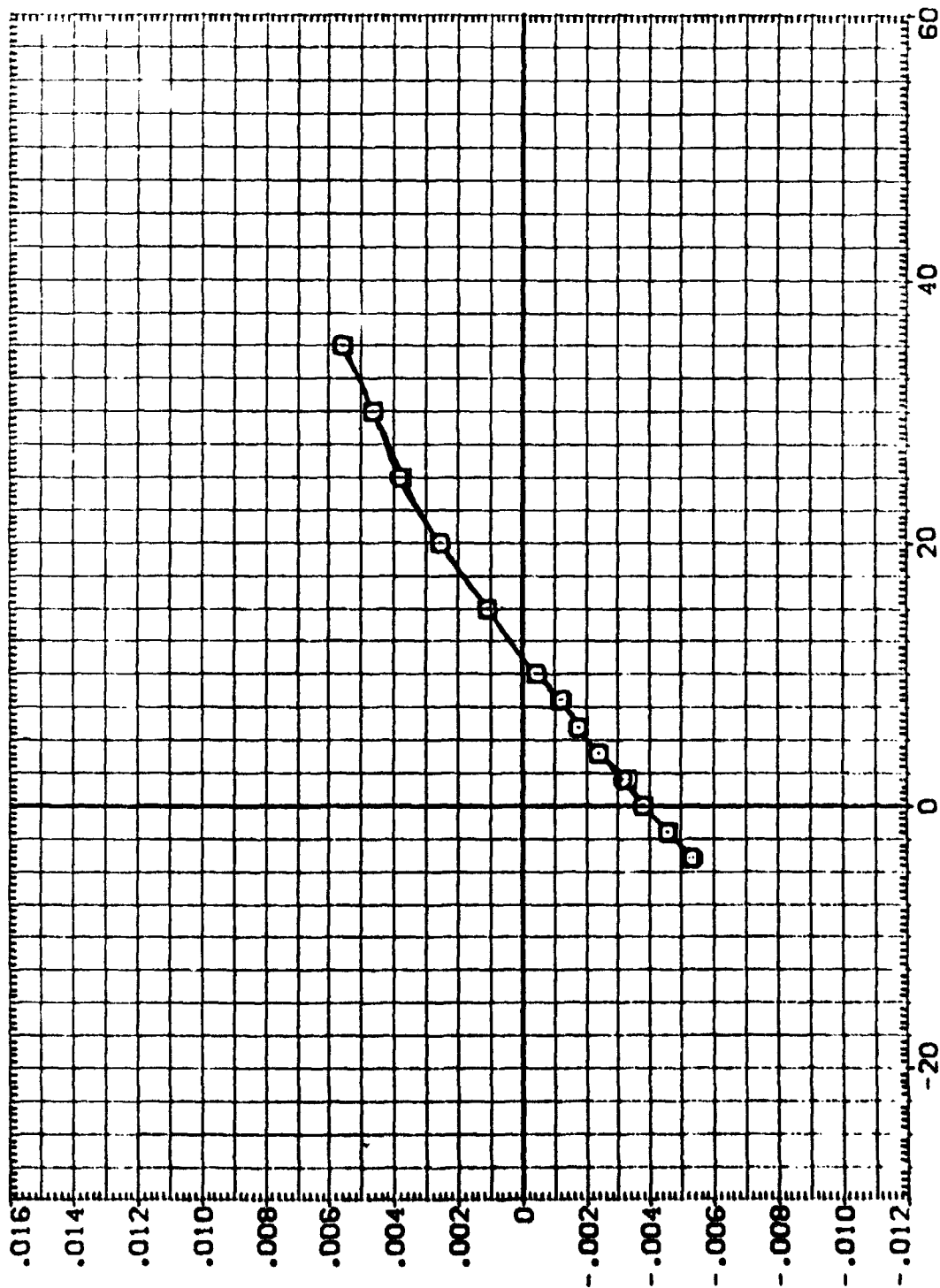


FIG. 7 LATERAL-DIRECTIONAL DATA

(B)MACH = 3.95

DATA SET SYMBOL CONFIGURATION DESCRIPTION DBETA BOFLAP SPOBRK ELEVON REFERENCE INFORMATION

DATA SET SYMBOL	CONFIGURATION DESCRIPTION	DBETA	BOFLAP	SPOBRK	ELEVON	REFERENCE INFORMATION
102102	DA-208 LARC UPVT 1097 140 A/B DBB	-3.000	-11.700	54.920	.000	SREF 2690.0000 SO.FT.
102107	DA-208 LARC UPVT 1097 140 A/B DBB	-3.000	-11.700	54.920	.000	LREF 1290.3000 INCHES
						BREF 975.6800 INCHES
						XTRP 1076.7000 INCHES
						YTRP .0000 INCHES
						ZTRP 375.0000 INCHES
						SCALE .0150 SCALE

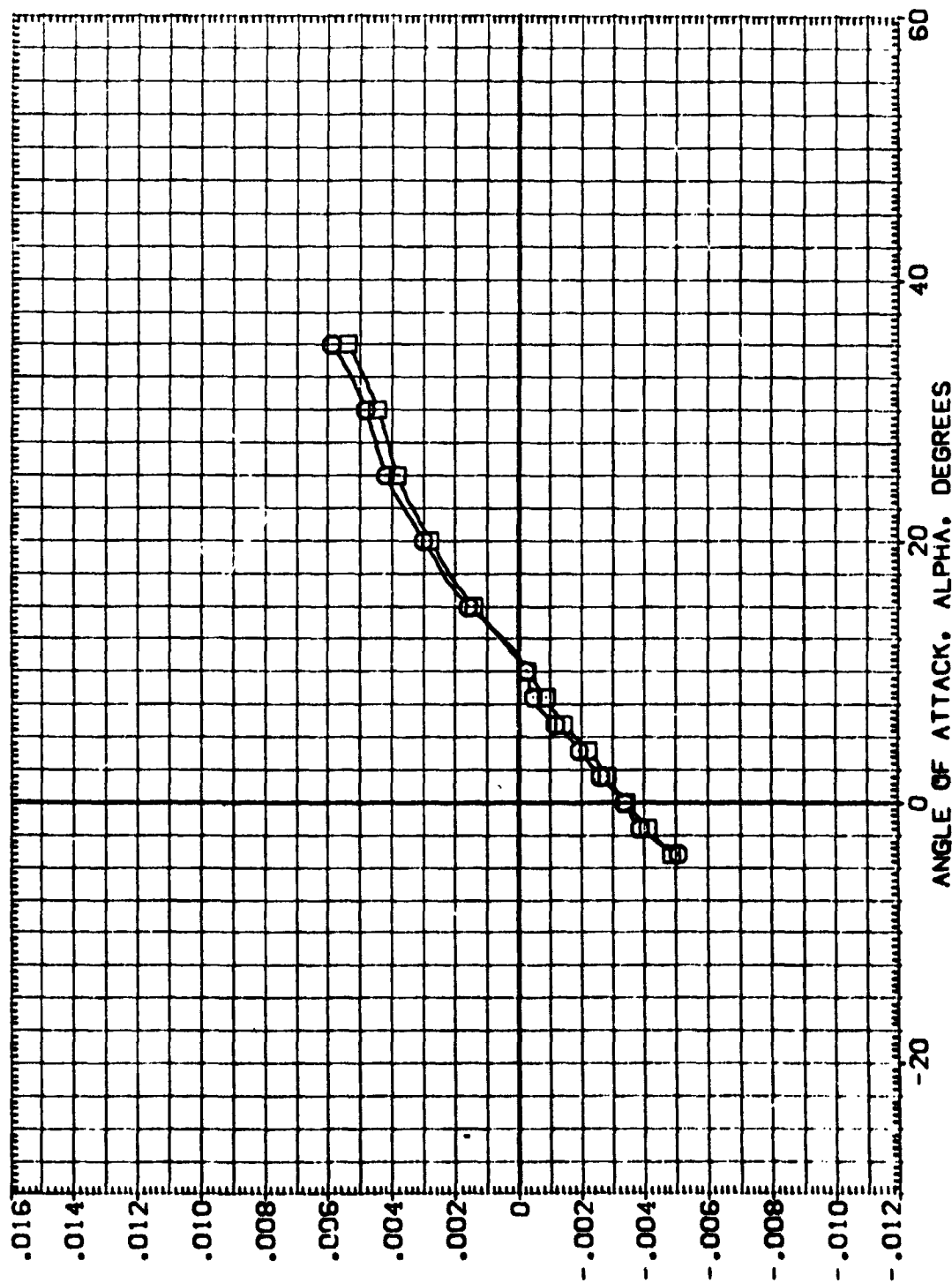


FIG. 7 LATERAL-DIRECTIONAL DATA

(CJMACH = 4.63

APPENDIX
TABULATED SOURCE DATA

Tabulations of plotted data are available on request from
Data Management Services

DATE 01 AUG 74

TABULATED SOURCE DATA - 04208

PAGE 1

04-208 LANC UPJT 1097 140 A/B ORS +DUMMY STING

(082101) (24 MAY 74)

REFERENCE DATA

WEP = 2000.0000 90.00 FT. WEP = 1076.7900 INCHES
 LWP = 1200.0000 INCHES WEP = .0000 INCHES
 WEP = 1000.0000 INCHES WEP = 375.0000 INCHES
 SCALE = .0150 SCALE

BETA = .000 ELEVON = .000
 SPDRNK = 54.920 BOFLAP = -11.700
 AILRON = .000 RUDDER = .000

PARAMETRIC DATA

RUN NO. 1/ 0 RV/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	L/D	CA	CLM	CBL	CYN	CY	CL	CD
2.500	-4.299	-0.0006	-1.35676	-1.0903	-0.0106	-0.00021	.00040	-.00090	-.16368	.12064
2.500	-2.222	.00054	-.92101	.10718	-.01764	-.00022	.00021	-.00223	-.10245	.11124
2.500	-.006	.01014	-.39135	.10554	-.02374	-.00035	.00014	-.00285	-.04133	.10560
2.500	1.902	.01494	.12762	.10415	-.02891	.00004	-.00007	-.00351	.01336	.10467
2.500	4.017	.01989	.64976	.10171	-.03616	-.00022	-.00030	-.00415	.06942	.10683
2.500	6.124	.01299	1.14923	.09484	-.04194	-.00009	-.00020	-.00271	.13051	.11339
2.500	8.225	.01980	1.53286	.09577	-.04765	-.00003	-.00030	-.00402	.19055	.12431
2.500	10.319	.01775	1.82022	.08868	-.05262	.00002	-.00016	-.00392	.25647	.14090
2.500	15.336	.02043	2.00982	.08013	-.05814	.00004	-.00030	-.00443	.41653	.20727
2.500	20.797	.02274	1.87246	.06305	-.08590	.00017	-.00029	-.00493	.57539	.30761
2.500	26.148	.02457	1.65553	.06732	-.10764	.00038	-.00026	-.00538	.74104	.44761
2.500	31.422	.03126	1.43122	.06674	-.12757	.00044	-.00051	-.00653	.89104	.62258
2.500	36.796	.03029	1.21614	.06084	-.15269	.00072	-.00052	-.00631	1.02353	.84162
GRADIENT		.00234	.24314	-.00075	-.00299	.00001	-.00006	-.00037	.02796	-.00165

RUN NO. 5/ 0 RV/L = 2.01 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	L/D	CA	CLM	CBL	CYN	CY	CL	CD
3.000	-3.006	-0.0153	-1.27681	.09234	-.03156	.00005	.00021	-.00027	-.12971	.10159
3.000	-1.401	-0.0164	-1.09040	.09979	-.02775	.00004	.00026	-.00020	-.09866	.09304
3.000	.100	-0.0070	-.66423	.08619	-.02668	.00002	.00013	-.00015	-.05712	.08600
3.000	2.233	-0.0006	-.18526	-.01211	-.02682	.00000	.00016	-.00008	-.01534	.08269
3.000	4.277	-0.0009	.31268	.08017	-.02642	.00009	.00016	-.00003	.02574	.08232
3.000	6.316	.00274	.82812	.07831	-.02980	.00020	.00002	-.00100	.06999	.08452
3.000	8.344	.00268	1.27596	.07595	-.03206	.00000	.00005	-.00194	.11732	.09194
3.000	10.409	.00241	1.60761	.07204	-.03566	.00007	.00001	-.00068	.16709	.10393
3.000	15.507	.00579	1.92312	.07074	-.04548	.00016	-.00015	-.00173	.30420	.15818
3.000	20.739	.01179	1.84765	.06941	-.05627	.00026	-.00030	-.00355	.49671	.24716
3.000	25.908	.01505	1.63922	.06858	-.07174	.00033	-.00047	-.00436	.60559	.37034
3.000	31.141	.01820	1.41514	.06757	-.08969	.00059	-.00064	-.00515	.75947	.53668
3.000	36.346	.02024	1.21426	.06382	-.11184	.00107	-.00063	-.00582	.89937	.74084
GRADIENT		.00009	.19405	-.00153	.00055	.00000	-.00001	.00003	.01929	-.00239

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TABULATED SOURCE DATA - CARS

PAGE 2

CA-200 LANC UP-UT 1097 140 A/B ONE TUBBY STING

(002101) (24 MAY 74)

REFERENCE DATA

WARP = 2000.0000 94.FT. WARP = 1076.7000 INCHES
 LWRP = 1290.3000 INCHES WARP = .0000 INCHES
 BWRP = 936.6000 INCHES WARP = 375.0000 INCHES
 SCALE = .0150 SCALE

BETA = .000 ELEVON = .000
 SPOBCK = 54.920 BOFLAP = -11.700
 ALLRON = .000 RUDDER = .000

PARAMETRIC DATA

RUN NO. 3 / 0 BVAL = P.05 GRADIENT INTERVAL = -5.00/ 5.00

INCH	ALPHA	BETA	L/D	ON	CA	CLM	CLL	CYN	CY	CL	CD
4.030	-3.954	-.00555	-1.27505	-.13942	.00099	-.03095	.00003	.00048	.00105	-.12732	.10001
4.035	-1.927	-.00453	-1.00634	-.04428	.00741	-.03045	.00001	.00031	.00109	-.09129	.09053
4.038	.100	.00022	-.00002	-.05438	.00742	-.02895	.00009	.00046	-.00397	-.05473	.04281
4.039	2.143	.00068	-.17107	-.01053	.07931	-.02721	.00022	.00048	-.00135	-.01349	.07846
4.038	4.160	.00716	.20051	.02772	.07555	-.02936	.00019	.00029	-.00388	.02216	.07736
4.038	6.204	.00973	.04077	.07492	.07189	-.02860	.00014	.00031	-.00510	.06673	.07937
4.038	8.229	-.00123	1.32252	.18024	.00959	-.03116	.00017	.00023	.00008	.11498	.04694
4.038	10.240	-.00024	1.65805	.17721	.06734	-.03528	-.00010	.00000	.00013	.16235	.09788
4.038	15.404	.00324	1.97916	.32813	.06617	-.04190	.00004	-.00021	-.00100	.29877	.15095
4.038	20.534	.00865	1.86340	.50454	.06378	-.05263	.00017	-.00043	-.00210	.44940	.23861
4.038	25.864	.00991	1.86396	.69932	.06441	-.06757	.00030	-.00041	-.00319	.59358	.35672
4.038	30.820	.01228	1.43612	.99612	.06315	-.09015	.00046	-.00082	-.00428	.73723	.51335
4.038	35.994	.01449	1.23117	1.11847	.06039	-.11674	.00071	-.00061	-.00535	.86944	.70619
4.038	GRADIENT	.00151	.19482	.02005	-.00192	.00050	.00003	-.00001	-.00061	.01855	-.00281



CA-250 LASC UPAT 1007 140 A/S CMB + DUMBY STING

(PAGE 102) (24 MAY 74)

REFERENCE DATA

CEP = 2000.0000 50-FT. WWP = 1076.7000 INCHES
 LWP = 1200.0000 INCHES WWP = .0000 INCHES
 BWP = 200.0000 INCHES WWP = 375.0000 INCHES
 SCALE = .0100 SCALE

PARAMETRIC DATA

BETA = 3.000 ELEVON = .000
 SPDRMK = 54.920 SOFLAP = -11.700
 AILRON = .000 RUDDER = .000

BLM NO. 2/ 0 BVL = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

BLM NO.	ALPHA	BETA	L/D	CA	CLM	CBL	CYN	CY	CL	CD
2.000	-4.313	3.2043	-1.44371	.10018	-.01761	.00356	-.00447	-.04359	-.16264	.11265
2.000	-2.215	3.10013	-.07905	.10179	-.02341	.00227	-.00496	-.04012	-.10366	.10587
2.000	-.141	3.10006	-.43650	.10160	-.02833	.00497	-.00560	-.03756	-.04436	.10191
2.000	1.902	3.10035	.14722	.10065	-.03356	.00470	-.00596	-.03592	.01490	.10122
2.000	4.842	3.10071	.67303	.10004	-.04069	.00410	-.00634	-.03519	.07067	.10530
2.000	6.116	3.10021	1.15090	.08717	-.04574	.00370	-.00604	-.03447	.12930	.11157
2.000	9.202	3.10002	1.53947	.06470	-.05142	.00280	-.00706	-.03436	.16929	.12296
2.000	10.274	3.10195	1.86261	.04963	-.05551	.00202	-.00682	-.03494	.25613	.13751
2.000	15.590	3.20425	2.04109	.04671	-.07141	-.00049	-.00587	-.04002	.41727	.20414
2.000	20.005	3.22054	1.98346	.07942	-.04799	-.00291	-.00565	-.04441	.57066	.30565
2.000	26.135	3.23195	1.86279	.06302	-.10570	-.00461	-.00674	-.04491	.75797	.44382
2.000	31.364	3.22774	1.42900	.06791	-.18530	-.00703	-.00754	-.04253	.88133	.61674
2.000	36.791	3.23336	1.21224	.06271	-.15239	-.00707	-.00812	-.04232	1.01621	.82829
GRADIENT			.25661	-.00006	-.00270	-.00017	-.00023	.00101	.02804	-.00793

BLM NO. 6/ 0 BVL = 2.01 GRADIENT INTERVAL = -5.00/ 5.00

BLM NO.	ALPHA	BETA	L/D	CA	CLM	CBL	CYN	CY	CL	CD
2.000	-3.606	3.11256	-1.26431	.08285	-.03135	.00539	-.00353	-.03707	-.13110	.10206
2.000	-1.606	3.10016	-1.04024	.09016	-.05009	.00457	-.00646	-.03502	-.09711	.09335
2.000	.106	3.10461	-.67864	.06734	-.02765	.00374	-.00404	-.03292	-.05914	.08715
2.000	2.204	3.10422	-.21142	.06441	-.02902	.00307	-.00436	-.03066	-.01771	.04376
2.000	4.271	3.10032	.32561	.06000	-.02865	.00237	-.00475	-.02979	.02660	.08221
2.000	6.300	3.10050	.79570	.07616	-.03066	.00165	-.00475	-.02972	.08719	.04552
2.000	8.344	3.10004	1.26139	.07519	-.03421	.00116	-.00475	-.02963	.11702	.09325
2.000	10.304	3.10432	1.56455	.07343	-.04607	.00036	-.00455	-.03051	.16381	.10470
2.000	15.590	3.10030	1.90553	.07146	-.06435	-.00107	-.00467	-.03230	.30049	.15786
2.000	20.750	3.11686	1.63647	.07055	-.06435	-.00232	-.00537	-.03406	.45297	.24665
2.000	25.608	3.11661	1.02916	.06939	-.07110	-.00370	-.00591	-.03563	.60437	.37097
2.000	31.120	3.12254	1.41150	.06756	-.09056	-.00423	-.00663	-.03563	.75503	.53488
2.000	36.300	3.12502	1.21313	.06374	-.11299	-.00465	-.00716	-.03338	.89765	.74011
GRADIENT			.19613	-.00155	.00032	-.00037	-.00014	.00062	.01934	-.00841

04-208 LANC UPRT 1007 140 A/B CMB + DUNNY STING

(R02102) (24 MAY 74)

REFERENCE DATA

0007 = 2000.0000 00.77, 100P = 1070.7000 INCHES
 1007 = 1200.3000 INCHES 100P = .0000 INCHES
 0007 = 000.0000 INCHES 200P = 375.0000 INCHES
 SCALE = .0156 SCALE

BETA = 3.000 ELEVON = .000
 SPOROK = 54.920 BDFLAP = -11.700
 AIRLON = .000 RUDDER = .000

PARAMETRIC DATA

RUN NO. 4/ 0 RVAL = 2.02 VADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	BETA	L/D	CM	CA	CLN	CBL	CYN	CV	CL	CD
4.000	-3.950	3.07941	-1.24000	-1.13214	.00197	-.03300	.00300	-.00356	-.03423	-.12550	.10047
4.000	-1.925	3.07940	-.90254	-.00200	.00431	-.02801	.00365	-.00370	-.03162	-.00979	.09130
4.000	.110	3.07932	-.63254	-.00334	.00460	-.02851	.00342	-.00396	-.03028	-.03350	.04450
4.000	2.130	3.07940	-.15541	-.00002	.00100	-.02831	.00277	-.00437	-.02990	-.01252	.00059
4.000	4.100	3.07107	-.20000	-.02000	.00740	-.02800	.00200	-.00400	-.02703	.00299	.07920
4.000	6.100	3.07100	-.00007	.00361	.00360	-.02800	.00123	-.00400	-.02753	.00722	.00130
4.000	8.221	3.07410	1.25722	.12230	.00745	-.03350	.00059	-.00400	-.02673	.11001	.00022
4.000	10.270	3.07900	1.99002	.17301	.00000	-.03454	.00013	-.00400	-.02665	.15047	.00914
4.000	12.307	3.07720	1.95000	.31900	.00000	-.03000	-.00100	-.00500	-.02904	.29044	.14911
4.000	14.314	3.00011	1.07070	.40047	.00000	-.04001	-.00204	-.00524	-.03070	.44174	.23612
4.000	16.442	3.07901	1.00000	.00011	.00000	-.00000	-.00000	-.00523	-.03045	.50035	.35510
4.000	18.000	3.00077	1.00000	.00001	.00000	-.00000	-.00000	-.00615	-.03030	.72000	.51001
4.000	20.000	3.00017	1.25007	1.11000	.00100	-.11411	-.00543	-.00630	-.03003	.00637	.70433
4.000	00.00000	-.00000	.10043	.00000	-.00170	.00051	-.00035	-.00016	.00070	.01044	-.00002



CH-200 LANC UPAT 1007 140 L/S OBS +0.000 BTING

(082103) (24 MAY 74)

REFERENCE DATA

REF 1 2000.0000 S/LFT. WSP = 1000.7000 INCHES
 LREF = 1200.1000 INCHES WSP = .0000 INCHES
 REF2 = 000.0000 INCHES WSP = 375.0000 INCHES
 SCALE = .0100 SCALE

BETA =
 SPORNA =
 ALLISON =

ELEVON = .000
 BOFLAP = 16.300
 RUDDER = .000

PARAMETRIC DATA

RUN NO. 7 / 8 R/VL = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	BETA	L/D	CA	CLM	CLL	CYN	CY	CL	CD
2.000	-4.200	.02702	-1.25002	.10000	-.02331	-.00002	.00027	-.00163	-.14976	.11979
2.000	-4.100	.03142	-.79130	.10000	-.02043	-.00004	.00016	-.00225	-.04022	.11140
2.000	-.120	.03346	-.27126	.10000	-.03050	-.00000	.00000	-.00222	-.02079	.10814
2.000	1.004	.03048	-.27046	.10401	-.04530	-.00000	.00019	-.00355	.02057	.10564
2.000	4.000	.04070	.79300	.10502	-.02006	-.00000	.00030	-.00306	.04043	.10940
2.000	6.104	.04322	1.25944	.10000	-.02000	-.00000	.00029	-.00406	.14720	.11604
2.000	8.230	.04230	1.02748	.09402	-.00010	.00005	.00028	-.00516	.21174	.13010
2.000	10.201	.04530	1.07310	.07002	-.07002	.00015	.00026	-.00605	.27764	.14005
2.000	15.504	.04107	2.01305	.00000	-.00000	.00025	.00022	-.00516	.44500	.21947
2.000	20.015	.04061	1.05000	.00000	-.12705	.00015	.00014	-.00635	.60810	.32024
2.000	25.120	.04004	1.03036	.00000	-.15474	.00045	.00014	-.00604	.77058	.47381
2.000	31.434	.00000	1.40056	.00000	-.16431	.00059	.00023	-.00600	.92392	.65967
2.000	36.002	.00704	1.19556	.00755	-.21021	.00100	.00036	-.00651	1.05347	.88115
GRADIENT	.00104	.00104	.24796	-.00007	-.00225	.00001	-.00007	-.00020	.02036	-.00120

RUN NO. 8 / 8 R/VL = 2.01 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	BETA	L/D	CA	CLM	CLL	CYN	CY	CL	CD
2.000	-3.000	.02720	-1.25046	.00007	-.03617	.00016	.00004	-.00026	-.11007	.09037
2.000	-1.000	.04000	-.02537	.00734	-.03007	.00021	.00003	-.01023	-.04339	.09011
2.000	.102	.04036	-.03058	.00770	-.03208	-.00002	.00003	.00100	-.04462	.09364
2.000	2.230	.04021	-.02507	.00770	-.03443	-.00005	.00003	.00104	-.00209	.04706
2.000	4.200	.04000	.02100	.00770	-.03000	.00011	.00017	.00044	.04225	.04100
2.000	6.305	.04190	1.02000	.00747	-.03000	.00000	.00016	-.00003	.04046	.04476
2.000	8.341	.04004	1.40000	.00732	-.04444	.00004	.00019	-.00049	.13348	.09347
2.000	10.400	.02000	1.74400	.00742	-.05100	.00020	.00002	-.00000	.10045	.10456
2.000	15.574	.02134	1.07042	.00745	-.00000	.00027	.00007	-.00007	.33172	.16707
2.000	20.770	.02025	1.00033	.00702	-.00007	.00004	.00004	-.00027	.44027	.26317
2.000	25.975	.02001	1.02025	.00735	-.11000	.00042	.00013	-.00336	.64473	.39792
2.000	31.130	.00040	1.30000	.00600	-.14113	.00004	.00004	-.00020	.80004	.57224
2.000	36.307	.00043	1.10076	.00640	-.17500	.00000	.00000	-.00000	.94106	.78001
GRADIENT	-.00030	-.00030	.21301	-.00153	-.00016	-.00002	-.00000	.00125	.01072	-.00214

CA-218 LANC UPRT 1007 148 1/8 CMB +QUARTY STING

0802103) (24 MAY 74)

REFERENCE DATA

WEP = 2000.0000 INCHES WEP = 1076.7900 INCHES
 LWP = 1200.3000 INCHES WWP = .0000 INCHES
 RWP = 000.0000 INCHES WRP = 375.0000 INCHES
 SCALE = .0000 SCALE

BETA = .000 ELEVON = .000
 SPORUM = 54.920 RUDFLAP = 16.300
 ALLISON = .000 RUDDER = .000

PARAMETRIC DATA

RAN NO. 9/ 0 RWA = 2.05 GRADIENT INTERVAL = -5.00/ 5.00

WICH	ALPHA	BETA	L/R	CA	CL	CL	CY	CL	CD
4.000	-1.000	.0000	-1.24016	.00000	-.00002	.00017	.00039	-.12102	.00776
4.000	-1.000	.0000	-.00790	.00000	-.00003	.00017	.00065	-.00463	.00834
4.000	.110	.0000	-.00372	.00000	-.00005	.00017	.00071	-.00281	.00001
4.000	2.130	.0000	-.00074	.00000	-.00005	.00019	.00048	-.00513	.00800
4.000	4.100	.0000	-.00000	.00000	-.00007	.00003	.00105	.00304	.00731
4.000	6.250	.0000	.00000	.00000	-.00008	.00002	.00124	.00933	.00904
4.000	8.211	.0000	1.40021	.00000	.00010	.00001	.00032	.12300	.00740
4.000	10.311	.0000	1.77004	.00000	.00010	.00003	.00117	.17001	.10000
4.000	15.410	.0000	2.01117	.00000	.00022	.00002	.00105	.31420	.15023
4.000	20.541	.0000	1.00041	.00012	.00014	.00000	.00214	.47074	.25020
4.000	25.671	.0000	1.00010	.00100	.00025	.00010	.00325	.62124	.37740
4.000	30.700	.0000	1.41002	.00000	.00035	.00039	.00436	.70247	.53046
4.000	35.840	.0000	1.21037	.00000	.00044	.00037	.00545	.80448	.73050
4.000	40.900	.0000	.21000	-.00170	-.00001	.00002	.00023	.01926	-.00251



CA-208 LARC UPAT 1007 148 A/B CMB -0000 STING

(000104) (24 MAY 74)

REFERENCE DATA

REF : 2000, 0000 90 FT. 100F = 1000, 7000 INCHES
 LREF : 1000, 3000 INCHES 100F = 1000, 7000 INCHES
 REF : 000, 0000 INCHES 100F = 375, 0000 INCHES
 SCALE : .0150 SCALE

PARAMETRIC DATA

BETA = .000 ELEVON = 15.000
 APOBOK = 54.920 BDFLAP = 16.300
 AILRON = .000 RUDDER = .000

BLM NO. 10/ 0 BML = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	L/D	CN	CA	CLM	CBL	CYN	CY	CL	CD
2.000	-4.205	.00233	-.01150	-.12002	.11407	-.06630	-.00023	.00042	-.00304	-.11194	.12260
2.000	-2.207	.04140	-.43106	-.05501	.11520	-.05322	-.00013	.00033	-.00305	-.05054	.11723
2.000	-.120	.00700	.07634	.00049	.11465	-.07231	-.00011	.00014	-.00444	.00075	.11463
2.000	1.064	.00006	.50164	.07102	.11444	-.06105	.00018	.00015	-.00904	.00796	.11464
2.000	4.005	.00454	1.02170	.13408	.11403	-.06959	-.00010	-.00025	-.00736	.12580	.12311
2.000	6.101	.00461	1.41425	.20337	.11300	-.10060	.00000	-.00010	-.00905	.10996	.13437
2.000	8.202	.00724	1.60611	.27194	.11221	-.11009	.00007	.00003	-.00832	.23306	.15009
2.000	10.311	.00993	1.87422	.34549	.11074	-.12044	-.00007	.00004	-.00951	.32009	.17079
2.000	12.577	.03728	1.94109	.54144	.11182	-.13265	-.00005	.00002	-.00455	.49150	.25321
2.000	15.023	.04201	1.76731	.74807	.11419	-.10805	.00007	.00009	-.00374	.63862	.37266
2.000	18.226	.03361	1.54696	.90369	.11475	-.22951	.00011	.00027	-.00997	.83171	.53764
2.000	21.474	.09072	1.33397	1.25821	.11553	-.27126	.00081	.00015	-.00949	.94548	.73876
2.000	24.705	.26805	1.13070	1.47708	.11640	-.31679	.00060	.00041	-.00982	1.11342	.97779
GRADIENT	.00002		.23496	.03086	-.00004	-.00396	.00003	-.00007	-.00061	.02860	.00001

BLM NO. 11/ 0 BML = 2.01 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	L/D	CN	CA	CLM	CBL	CYN	CY	CL	CD
3.000	-3.907	.01361	-1.06056	-.11246	.08171	-.04606	.00015	.00051	.00175	-.10595	.09915
3.000	-1.625	.04346	-.73826	-.07030	.08937	-.04768	.00013	.00051	.00181	-.03742	.09156
3.000	.101	.01010	-.32950	-.02640	.08720	-.05083	.00013	.00035	.00063	-.02869	.08711
3.000	2.267	.01902	.10647	.02032	.08553	-.05353	-.00005	.00035	.00090	.01695	.06826
3.000	4.805	.01000	.72283	.07074	.08593	-.05682	.00008	.00035	.00042	.06430	.06896
3.000	6.320	.01061	1.17204	.12091	.08202	-.06610	.00022	.00036	-.00007	.11114	.07483
3.000	8.372	.02134	1.54060	.17794	.08152	-.07383	.00008	.00039	-.00134	.16417	.17856
3.000	10.433	.02237	1.77803	.23601	.08159	-.08416	.00018	.00022	-.00195	.21930	.12334
3.000	12.673	.02365	1.92497	.41641	.08603	-.11396	.00040	.00014	-.00283	.37747	.19609
3.000	15.702	.02810	1.77475	.60432	.08248	-.14521	.00032	.00024	-.00366	.53280	.30021
3.000	18.006	.03290	1.54675	.82164	.10070	-.17967	.00034	.00027	-.00548	.69516	.44943
3.000	21.000	.03515	1.33493	1.06490	.10702	-.22424	.00057	.00028	-.00829	.85664	.64172
3.000	24.023	.03724	1.13356	1.32931	.11616	-.26954	.00091	.00029	-.00709	1.00066	.88274
GRADIENT	.00000		.22110	.02238	-.00095	-.00123	-.00002	-.00002	-.00017	.02081	-.00126

CA-208 LARC UPWT 1097 148 L/B CUB *CLAMP STING

(RG2104) (24 MAY 74)

REFERENCE DATA

WING = 8000.0000 SQ.FT. WING = 1076.7000 INCHES
 LEAD = 1290.3000 INCHES WING = .0000 INCHES
 WING = 936.0000 INCHES WING = 375.0000 INCHES
 SCALE = .0150 SCALE

BETA = .000 ELEVON = 15.000
 SPORER = 54.920 BOFLAP = 16.300
 ALLCON = .000 RUDDER = .000

PARAMETRIC DATA

RUN NO. 12/ 0 SNL = 2.05 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	L/D	CM	CA	CLM	CLL	CYN	CV	CL	CD
4.030	-3.907	.01684	-1.10504	-1.1362	.00000	-.04430	.00019	.00042	.00229	-.10805	.09860
4.030	-1.934	.01737	-.00170	-.07500	.00742	-.04341	.00017	.00019	.00233	-.07200	.04991
4.030	.000	.01745	-.36333	-.03057	.04450	-.04650	-.00005	.00019	.00239	-.03072	.04454
4.030	2.095	.02000	.13300	.01404	.01099	-.04904	.00014	.00021	.00115	.01104	.04245
4.030	4.105	.02111	.01244	.02665	.07000	-.05000	.00013	-.00001	.00052	.05076	.04244
4.030	6.223	.02102	1.16412	.11173	.07002	-.04025	.00011	.00000	-.00011	.10277	.04028
4.030	8.279	.02001	1.55077	.16727	.07000	-.04017	.00009	.00001	-.00071	.15462	.04070
4.030	10.246	.02342	1.77867	.22102	.07004	-.07741	.00008	.00005	-.00231	.20457	.11502
4.030	13.400	.02435	1.94620	.30021	.04122	-.10270	.00019	-.00007	-.00239	.35364	.16171
4.030	19.005	.02537	1.79097	.59402	.04000	-.13650	-.00008	.00008	-.00476	.52494	.29100
4.030	25.700	.04174	1.90305	.60103	.04000	-.17591	.00022	.00010	-.00540	.67965	.43406
4.030	30.001	.03136	1.34270	1.02232	.10300	-.22015	.00020	.00008	-.00371	.82420	.61390
4.030	30.002	.00000	1.14999	1.26400	.11074	-.27013	.00030	.00036	-.00406	.95747	.83259
GRADIENT		.00007	.21531	.02136	-.00144	-.00001	-.00001	-.00004	-.00023	.01964	-.00182

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TABULATED SOURCE DATA - 04208

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04-208 LARC UPWT 1097 140 A/B CRB DUMMY STING

(R02105) (24 MAY 74)

REFERENCE DATA

WREF = 2950.0000 90.FT. WREF = 1076.7000 INCHES
LREF = 1296.3000 INCHES YREF = .0000 INCHES
BREF = 936.6000 INCHES ZREF = 375.0000 INCHES
SCALE = .0150 SCALE

PARAMETRIC DATA

BETA = .00J ELEVON = -40.000
SPDRBK = 54.920 BDFLAP = -11.700
AILRON = .000 RUDDER = .000

RUN NO. 13/ 0 RW/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	L/D	CN	CA	CLM	CBL	CYN	CY	CL	CD
2.500	-4.371	-.00274	-1.59059	-.29296	.15437	.06374	-.00033	.00023	.00122	-.28035	.17625
2.500	-2.261	.00473	-1.36267	-.21776	.14694	.05399	-.00015	.00000	-.00011	-.21179	.15542
2.500	-.199	.00435	-1.05471	-.14981	.14111	.04361	-.00018	-.00011	-.00075	-.14935	.14160
2.500	1.873	.01038	-.62204	-.07731	.13365	.03144	-.00023	-.00036	-.00071	-.04165	.13125
2.500	3.968	.01027	-.13541	-.00822	.12557	.01884	.00016	-.00035	-.00103	-.01689	.12470
2.500	6.074	.01047	.36462	.05690	.12019	.01210	.00035	-.00009	.00200	.04563	.12575
2.500	8.158	.01286	.60678	.12598	.11726	.00611	.00023	-.00008	-.00297	.10807	.13395
2.500	10.261	.01527	1.15437	.19314	.11441	.00261	.00032	-.00006	-.00387	.16968	.14699
2.500	15.503	.01944	1.70704	.38140	.10119	-.01407	.00033	-.00023	-.00437	.34047	.19945
2.500	20.648	.01750	1.74278	.56859	.09208	-.02997	.00045	-.00006	-.00415	.49959	.28667
2.500	26.065	.02423	1.59067	.77625	.08264	-.04232	.00058	-.00029	-.00530	.66090	.41549
2.500	31.357	.02821	1.38804	.98368	.07592	-.05266	.00070	-.00053	-.00577	.80050	.57671
2.500	36.676	.03206	1.19297	1.20291	.06925	-.06504	.00071	-.00077	-.00621	.92340	.77403
GRADIENT	.00152	.00152	.17538	.03411	-.00340	-.00540	.00004	-.00007	-.00025	.03157	-.00612

RUN NO. 14/ 0 RW/L = 2.01 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	L/D	CN	CA	CLM	CBL	CYN	CY	CL	CD
3.950	-3.925	-.00383	-1.40631	-.20420	.11793	.01176	.00056	.00051	.00180	-.19565	.13164
3.950	-1.889	-.00401	-1.33727	-.16205	.11305	.01262	.00038	.00051	.00187	-.15824	.11833
3.950	.172	-.00145	-1.06153	-.11321	.10729	.01127	.00038	.00052	.00093	-.11353	.10695
3.950	2.197	-.00045	-.69035	-.06453	.10160	.00721	.00035	.00034	.00096	-.06838	.09905
3.950	4.250	.00051	-.22142	-.01387	.09584	.00595	.00033	.00017	.00050	-.02093	.09455
3.950	6.295	.00422	.27981	.03649	.09065	.00098	.00032	.00001	-.00100	.02633	.09410
3.950	8.357	.00269	.75680	.06700	.08757	-.00153	.00016	.00020	-.00144	.07335	.09928
3.950	10.396	.00399	1.12676	.14074	.08521	-.00547	.00029	.00003	-.00185	.12305	.10921
3.950	15.541	.00570	1.63785	.28679	.08151	-.01079	.00052	-.00024	-.00171	.25447	.15537
3.950	20.725	.01053	1.71522	.46255	.07755	-.01686	.00063	-.00013	-.00349	.40517	.23622
3.950	25.907	.01373	1.56818	.64715	.07508	-.02327	.00071	-.00030	-.00428	.54931	.35029
3.950	31.099	.01619	1.38020	.84877	.07166	-.02936	.00094	-.00046	-.00506	.68977	.49976
3.950	36.332	.02157	1.19297	1.06832	.06795	-.03738	.00133	-.00044	-.00681	.82038	.68768
GRADIENT	.00060	.00060	.15544	.02340	-.00272	-.00084	-.00002	-.00004	-.00017	.02150	-.00457

OA-208 LARC UPWT 1097 140 A/B ORB +DUMMY STING

IRQ2105) (24 MAY 74)

REFERENCE DATA

WREF = 2000.0000 80.FT. WREF = 1076.7000 INCHES
 LREF = 1290.3000 INCHES WREF = .0000 INCHES
 BREF = 936.6000 INCHES ZREF = 375.0000 INCHES
 SCALE = .0150 #/ALF

BETA = .000 ELEVON = -40.000
 SPDRK = 54.920 BDFLAP = -11.700
 ALLRON = .000 RUDDER = .000

PARAMETRIC DATA

RUN NO. 15/ 0 RML = 2.03 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	L/D	CN	CA	CLM	CBL	CYN	CY	CL	CD
4.630	-3.984	-.00287	-1.43231	-.20347	.12196	.01272	.00046	.00042	.00236	-.19451	.13580
4.630	-1.947	-.00299	-1.27615	-.15861	.11578	.01273	.00046	.00042	.00242	-.15457	.12112
4.630	.086	.00189	-1.03268	-.10987	.10672	.00643	.00025	-.00032	.00114	-.11003	.10635
4.630	2.122	.00062	-.66069	-.06063	.09961	.00639	.00023	.00121	.00123	-.06428	.09729
4.630	4.154	.00169	-.22553	-.01369	.09231	.00057	.00040	-.00001	.00059	-.02054	.09106
4.630	6.177	.00157	.26454	.03301	.08603	-.00213	.00039	.00000	-.00002	.02356	.08908
4.630	8.225	.00416	.75909	.08429	.08304	-.00504	.00040	.00003	-.00191	.07154	.09425
4.630	10.256	.00515	1.15422	.13547	.08027	-.00644	.00038	-.00019	-.00244	.11901	.10311
4.630	15.356	.00590	1.69801	.27780	.07511	-.00877	.00031	-.00030	-.00227	.24797	.14604
4.630	20.500	.01200	1.76565	.44978	.07145	-.01667	.00046	-.00039	-.00463	.39628	.22444
4.630	25.658	.01423	1.60247	.62823	.06944	-.02480	.00060	-.00037	-.00570	.53622	.33462
4.630	30.793	.01371	1.39698	.81909	.06883	-.03379	.00070	-.00037	-.00547	.66838	.47845
4.630	35.971	.01968	1.20786	1.02403	.06533	-.04659	.00064	-.00057	-.00780	.79038	.65437
4.630	GRADIENT	.00063	.14883	.02344	-.00371	-.00151	-.00002	-.00005	-.00023	.02153	-.00537

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TABULATED SOURCE DATA - 04208

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04-208 LARC UPWT 1087 140 A/B ORB

(R02106) (24 MAY 74)

REFERENCE DATA

WREF = 2696.0000 90.FT. WREF = 1076.7000 INCHES
 LREF = 1290.3000 INCHES WREF = .0000 INCHES
 WREF = 936.6900 INCHES WREF = 375.0000 INCHES
 SCALE = .0150 SCALE

PARAMETRIC DATA

BETA = .000 ELEVON = -40.000
 SPOILER = 54.920 BOFLAP = -11.700
 ALRON = .000 RUDDER = .000

RUN NO. 16/ 0 RV/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	L/D	CN	CA	CLM	CBL	CYN	CY	CL	CD
2.500	-4.361	-.00384	-1.57158	-.29359	.15681	.06396	-.00009	.00051	-.00079	-.28082	.17868
2.500	-2.258	.00472	-1.35834	-.21909	.14835	.05443	-.00011	.00016	-.00192	-.21308	.15686
2.500	-.183	.00450	-1.04341	-.14936	.14230	.04418	-.00005	.00015	-.00166	-.14893	.14274
2.500	1.901	.00829	-.63992	-.07965	.13407	.03052	-.00009	-.00009	-.00211	-.06406	.13135
2.500	3.993	.01022	-.13506	-.00610	.12323	.01966	.00007	-.00021	-.00203	-.01680	.12437
2.500	6.064	.01316	.34854	.05650	.11964	.01218	.00027	.00006	-.00332	.04355	.12494
2.500	8.169	.01494	.79415	.12343	.11663	.00539	.00048	.00044	-.00459	.10561	.13298
2.500	10.265	.01690	1.14911	.19055	.11344	.00275	.00054	.00019	-.00453	.16728	.14558
2.500	15.516	.01880	1.69396	.38047	.10223	-.01440	.00056	.00020	-.00501	.33926	.20028
2.500	20.766	.01908	1.73746	.57252	.09228	-.03008	.00057	.00008	-.00482	.50261	.28928
2.500	26.051	.02423	1.59794	.77499	.06129	-.04222	.00058	-.00029	-.00530	.66055	.41338
2.500	31.366	.03094	1.39271	.98281	.07413	-.05154	.00082	-.00052	-.00645	.80060	.57485
2.500	36.686	.03094	1.19635	1.20757	.06763	-.06335	.00081	-.00064	-.00619	.92797	.77567
GRADIENT		.00157	.17207	.03405	-.00371	-.00539	.00002	-.00008	-.00013	.03149	-.00643

RUN NO. 17/ 0 RV/L = 2.01 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	L/D	CN	CA	CLM	CBL	CYN	CY	CL	CD
3.950	-3.910	-.00612	-1.46297	-.20184	.11863	.01093	.00061	.00110	-.00109	-.19328	.13211
3.950	-1.874	-.00516	-1.32066	-.16047	.11345	.01220	.00043	.00091	-.00075	-.15667	.11863
3.950	.174	-.00641	-1.05362	-.11248	.10741	.00967	.00056	.00108	-.00039	-.11281	.10707
3.950	2.220	-.00432	-.65701	-.08111	.10136	.00697	.00037	.00072	-.00006	-.06499	.09891
3.950	4.260	-.00062	-.18489	-.01048	.09627	.00344	.00036	.00055	-.00097	-.01761	.09523
3.950	6.310	.00037	.27685	.03648	.09127	-.00021	.00033	.00037	-.00093	.02623	.09473
3.950	8.358	-.00095	.76826	.09038	.08761	-.00282	.00030	.00055	-.00085	.07669	.09982
3.950	10.415	.00002	1.14877	.14406	.08528	-.00671	.00027	.00037	-.00081	.12627	.10992
3.950	15.560	.00454	1.65367	.29344	.06192	-.01152	.00052	.00002	-.00167	.26071	.15763
3.950	20.734	.00667	1.72327	.46610	.07710	-.01815	.00061	.00004	-.00246	.40862	.23712
3.950	25.914	.00889	1.57303	.65383	.07485	-.02467	.00084	-.00013	-.00326	.55538	.35306
3.950	31.132	.01457	1.38132	.85858	.07165	-.02941	.00094	-.00010	-.00510	.69788	.50522
3.950	36.347	.01788	1.19536	1.08329	.06755	-.03904	.00131	-.00028	-.00577	.83250	.69644
GRADIENT		.00058	.15758	.02359	-.00278	-.00099	-.00003	-.00006	.00005	.02168	-.00457

04-208 LARC UPWT 1097 140 A/B CRB

(R02106) (24 MAY 74)

REFERENCE DATA

WREF = 2690.0000 90.FT. WREF = 1076.7000 INCHES
LREF = 1290.3000 INCHES WREF = .0000 INCHES
BREF = 936.6800 INCHES WREF = 311.0000 INCHES
SCALE = .0150 SCALE

PARAMETRIC DATA

BETA = .000 ELEWON = -40.000
SPCRK = 54.920 BDFLAP = -11.700
AILRON = .000 RUDDER = .000

RUN NO. 18/ 0 RM/L = 2.02 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	L/D	CN	CA	CLM	CBL	CYN	CY	CL	CD
4.630	-3.973	-0.0673	-1.39572	-1.9655	.12115	.00845	.00052	.00092	-.00007	-.18769	.13447
4.630	-1.940	-0.0300	-1.26807	-1.15706	.11545	.00864	.00032	.00070	-.00094	-.15306	.12071
4.630	.097	-0.0312	-.99762	-.10463	.10323	.00591	.00028	.00070	-.00051	-.10480	.10505
4.630	2.124	-0.0319	-.67020	-.06100	.09875	.00310	.00045	.00069	-.00010	-.06462	.09642
4.630	4.164	-0.0218	-.17795	-.00950	.09147	-.00102	.00042	.00046	.00001	-.01611	.09054
4.630	6.193	.00042	.31614	.03749	.08526	-.00372	.00042	.00048	-.00122	.02808	.08881
4.630	8.224	.00029	.90860	.08870	.08238	-.00665	.00039	.00048	-.00115	.07600	.09422
4.630	10.272	.00130	1.19515	.13978	.07956	-.00956	.00036	.00025	-.00112	.12335	.10321
4.630	15.385	.00477	1.71577	.28224	.07483	-.01271	.00051	.00003	-.00224	.25227	.14703
4.630	20.520	.00813	1.76842	.45470	.07175	-.01679	.00044	-.00018	-.00332	.40070	.22659
4.630	25.664	.01039	1.60838	.62835	.06834	-.02631	.00058	-.00016	-.00440	.53677	.33373
4.630	30.828	.01256	1.39941	.82380	.06804	-.03370	.00070	-.00015	-.00544	.67254	.48059
4.630	35.971	.01585	1.21121	1.02858	.06423	-.04838	.00062	-.00036	-.00852	.79472	.65614
4.630	GRADIENT	.00044	.14916	.02312	-.00374	-.00121	-.00000	-.00005	.00005	.02122	-.00551

DATE 01 AUG 74

TABULATED SOURCE DATA - 04208

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04-208 LARC UPWT 1097 140 A/B 008

(R02107) (24 MAY 74)

REFERENCE DATA

WDF = 2890.0000 30.0 FT. 190P = 1076.7000 INCHES
 LWF = 1290.3000 INCHES 190P = .0000 INCHES
 BWF = 936.6000 INCHES 240P = 375.0000 INCHES
 SCALE = .0150 SCALE

PARAMETRIC DATA

BETA = .000 ELEVON = .000
 SPDRBK = 54.920 BOFLAP = -11.700
 AILRON = .000 RUDDER = .000

RUN NO. 19/ 0 RWL = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	L/D	CN	CA	CLM	CBL	CYN	CY	CL	CD
2.500	-4.261	-.00246	-1.36450	-.17269	.10772	-.01006	-.00032	.00039	-.00066	-.16417	.12031
2.500	-2.195	.00116	-.92849	-.10708	.10681	-.01707	-.00024	.00027	-.00129	-.10291	.11084
2.500	-.107	.00589	-.41577	-.04385	.10492	-.02306	-.00027	.00003	-.00173	-.04366	.10500
2.500	1.958	.00841	.10528	.01445	.10326	-.02979	-.00019	.00004	-.00216	.01092	.10370
2.500	4.039	.00828	.65326	.07688	.10131	-.03640	-.00022	-.00009	-.00207	.06956	.10647
2.500	6.113	.01060	1.12981	.13929	.09899	-.04142	-.00014	.00004	-.00268	.12796	.11326
2.500	8.202	.01148	1.50804	.20407	.09666	-.04741	-.00007	-.00008	-.00263	.18819	.12479
2.500	10.294	.01384	1.80329	.27557	.09336	-.05262	-.00020	-.00007	-.00322	.25445	.14110
2.500	15.553	.01428	2.00576	.45623	.08824	-.06974	.00013	-.00020	-.00306	.41586	.20734
2.500	20.809	.01772	1.87815	.65031	.08242	-.08724	.00016	-.00005	-.00420	.57860	.30807
2.500	26.106	.02342	1.66741	.86187	.07308	-.10806	.00039	-.00016	-.00538	.74179	.44487
2.500	31.398	.03019	1.43655	1.07703	.06482	-.12584	.00061	-.00039	-.00654	.88555	.61644
2.500	36.717	.06694	1.22214	1.31371	.05906	-.15057	.00081	-.00015	-.00628	1.01776	.83277
GRADIENT	.00148	.00148	.24378	.02985	-.00079	-.00315	.00001	-.00006	-.00016	.02796	-.00168

RUN NO. 21/ 0 RWL = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	L/D	CN	CA	CLM	CBL	CYN	CY	CL	CD
3.950	-3.844	-.00250	-1.28590	-.13314	.09124	-.03074	.00021	.00072	-.00014	-.12665	.10005
3.950	-1.843	-.00597	-1.02534	-.09499	.08686	-.02682	.00006	.00074	-.00078	-.08214	.08987
3.950	.203	-.00299	-.64941	-.05349	.08301	-.02569	.00003	.00055	-.00045	-.05378	.06382
3.950	2.247	-.00314	-.14808	-.00863	.07980	-.02579	.00000	.00054	-.00010	-.01176	.07940
3.950	4.283	-.00212	.34852	.03538	.07754	-.02803	.00013	.00036	-.00001	.02947	.07997
3.950	6.320	-.00226	.89588	.08271	.07402	-.02927	.00026	.00036	.00004	.07405	.08268
3.950	8.364	.00029	1.37400	.13671	.07172	-.03319	.00025	.00038	-.00091	.12482	.09084
3.950	10.424	.00126	1.67813	.19049	.07072	-.03713	.00022	.00019	-.00086	.17455	.10402
3.950	15.576	.00350	1.94537	.34337	.06924	-.04695	.00032	.00021	-.00170	.31216	.15890
3.950	20.729	.00681	1.86807	.51975	.06780	-.05876	.00040	.00004	-.00252	.46211	.24737
3.950	25.825	.01003	1.64762	.71419	.06663	-.07287	.00047	-.00013	-.00333	.61319	.37216
3.950	31.147	.01207	1.42588	.93997	.06442	-.09045	.00089	-.00012	-.00410	.76772	.53925
3.950	36.376	.01796	1.21946	1.17739	.06122	-.11413	.00106	-.00027	-.00589	.91165	.74759
GRADIENT	.00047	.00047	.20299	.02073	-.00169	.00032	-.00001	-.00005	.00005	.01922	-.00248

DATE 01 AUG 74

TABULATED SOURCE DATA - OA208

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OA-208 LARC UPWT 1097 140 A/B OR8

(R02107) (24 MAY 74)

REFERENCE DATA

WREF = 2000.0000 90.FT. WREF = 1076.7000 INCHES
LREF = 1290.3000 INCHES WREF = .0000 INCHES
BREF = 936.8000 INCHES WREF = 375.0000 INCHES
SCALE = .0150 SCALE

BETA = .000 ELEVON = .000
SPDRF = 54.920 BDFLAP = -11.700
AILRON = .000 RUDDER = .000

PARAMETRIC DATA

RUN NO. 23/ 0 RV/L = 2.03 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	L/D	CM	CA	CLM	CBL	CYN	CY	CL	CD
4.630	-3.826	-.00281	-1.24728	-.12953	.04991	-.03317	.00027	.00071	-.00140	-.12302	.09863
4.630	-1.921	-.00454	-1.02159	-.09427	.04329	-.02807	.00003	.00046	.00030	-.09133	.08940
4.630	.114	-.00194	-.62008	-.05026	.04142	-.02780	.00003	.00047	-.00035	-.05042	.08132
4.630	2.143	-.00205	-.17422	-.01054	.07753	-.02588	.00000	.00046	-.00012	-.01343	.07709
4.630	4.178	-.00104	.35551	.03254	.07395	-.02519	-.00002	.00023	-.00001	.01706	.07613
4.630	6.205	-.00114	.85803	.07502	.07036	-.02941	-.00004	.00023	.00003	.06697	.07805
4.630	8.234	-.00124	1.34255	.12644	.06850	-.03239	.00013	.00023	.00008	.11533	.08590
4.630	10.293	.00134	1.67674	.17762	.06648	-.03530	.00012	.00025	-.00114	.16288	.09714
4.630	15.401	.00211	1.94353	.32451	.06516	-.04102	.00025	.00001	-.00099	.29555	.14900
4.630	20.536	.00549	1.88848	.50469	.06323	-.05243	.00017	-.00020	-.00208	.44973	.23814
4.630	25.676	.00776	1.66754	.68792	.06350	-.06462	.00030	-.00018	-.00317	.59248	.35530
4.630	30.829	.01112	1.43944	.89441	.06191	-.06876	.00041	-.00039	-.00426	.73631	.51152
4.630	36.002	.01603	1.23545	1.11845	.05833	-.11491	.00053	-.00036	-.00660	.87084	.70463
	GRADIENT	.00030	.19933	.02006	-.00200	.00089	-.00003	-.00005	.00012	.01859	-.00282

DATE 01 AUG 74

TABULATED SOURCE DATA - 04208

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04-208 LARC UPWT 1037 140 A/B CRB

(042108) (24 MAY 74)

REFERENCE DATA

WREF = 2000.0000 90-FT. WREF = 1076.7000 INCHES
 LREF = 1200.3000 INCHES WREF = .0000 INCHES
 BREF = 936.6000 INCHES ZREF = 375.0000 INCHES
 SCALE = .0190 SCALE

PARAMETRIC DATA

BETA = 3.000 ELEVON = .000
 SPDBRK = 54.920 BOFLAP = -11.700
 AIRLON = .000 RUDDER = .000

RUN NO. 20/ 0 RWL = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	L/D	CN	CA	CLM	CL	CYN	CY	CL	CD
2.900	-4.290	3.21084	-1.38702	-1.7701	.10444	-.01216	.00568	-.00522	-.04356	-.16839	.12140
2.900	-2.211	3.20140	-.96647	-1.1182	.10711	-.02000	.00557	-.00577	-.03990	-.10761	.11134
2.900	-1.117	3.19637	-.43748	-.04658	.10548	-.02529	.00528	-.00617	-.03780	-.04636	.10597
2.900	1.956	3.19134	.12146	.01622	.10360	-.03132	.00489	-.00658	-.03531	.01267	.10430
2.900	4.053	3.18699	.63849	.07601	.10238	-.03671	.00430	-.00697	-.03386	.06862	.10748
2.900	6.125	3.18204	1.11444	.13616	.09956	-.04373	.00384	-.00735	-.03379	.12674	.11373
2.900	8.196	3.17543	1.50525	.20500	.09734	-.04887	.00309	-.00744	-.03439	.18902	.12558
2.900	10.311	3.16974	1.80024	.27837	.09444	-.05572	.00200	-.00731	-.03424	.25697	.14274
2.900	15.551	3.16052	2.00605	.45844	.08665	-.06987	-.00028	-.00610	-.03997	.41789	.20831
2.900	20.791	3.14941	1.88125	.64916	.08204	-.08779	-.00280	-.00552	-.04436	.57777	.30712
2.900	26.093	3.13185	1.67135	.85756	.07201	-.10426	-.00501	-.00673	-.04480	.73849	.44185
2.900	31.379	3.12494	1.43542	1.07247	.06330	-.12367	-.00727	-.00737	-.04172	.88161	.61418
2.900	36.706	3.12270	1.22156	1.31071	.05948	-.15021	-.00731	-.00812	-.04085	1.01526	.83111
GRADIENT		-.00256	.24668	.03044	-.00074	-.00309	-.00017	-.00021	.00115	.02853	-.00168

RUN NO. 22/ 0 RWL = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	L/D	CN	CA	CLM	CL	CYN	CY	CL	CD
3.950	-3.881	3.10401	-1.26277	-1.1317	.09027	-.03176	.00543	-.00266	-.03803	-.12495	.09895
3.950	-1.844	3.10458	-1.00294	-.09336	.08728	-.02798	.00460	-.00305	-.03566	-.09030	.09024
3.950	.208	3.10117	-.62423	-.08211	.08415	-.02674	.00377	-.00345	-.03330	-.05241	.08397
3.950	2.241	3.09779	-.13106	-.00741	.08102	-.02686	.00324	-.00385	-.03095	-.01057	.08067
3.950	4.276	3.09710	.38071	.03631	.07744	-.02899	.00242	-.00422	-.02983	.03043	.07993
3.950	6.334	3.09529	.88810	.08344	.07323	-.03025	.00192	-.00442	-.02877	.07464	.08397
3.950	8.373	3.09660	1.35785	.13725	.07297	-.03408	.00123	-.00422	-.02966	.12516	.09216
3.950	10.422	3.08631	1.65714	.19087	.07107	-.03794	.00049	-.00422	-.02957	.17468	.10541
3.950	15.555	3.10329	1.95463	.34327	.07000	-.04765	-.00094	-.00454	-.03137	.31189	.15956
3.950	20.750	3.11126	1.85933	.51921	.06457	-.05691	-.00229	-.00505	-.03315	.46124	.24807
3.950	25.938	3.11542	1.64369	.71682	.06749	-.07107	-.00340	-.00539	-.03390	.61518	.37427
3.950	31.135	3.11912	1.42097	.93481	.06338	-.09105	-.00414	-.00611	-.03369	.76634	.53931
3.950	36.399	3.12277	1.21777	1.17593	.06230	-.11348	-.00473	-.00683	-.03345	.91006	.74732
GRADIENT		-.00140	.20386	.02065	-.00156	.00033	-.00036	-.00019	.00103	.01915	-.00233

OA-20B LARC UPWT 1097 140 A/B CR8

(R02108) (24 MAY 74)

REFERENCE DATA

WREF = 2690.0000 94.FT. WREF = 1076.7000 INCHES
LREF = 1290.3000 INCHES WREF = .0000 INCHES
BREF = 936.6000 INCHES WREF = 375.0000 INCHES
SCALE = .0130 SCALE

PARAMETRIC DATA

BETA = 3.000 ELEVON = .000
SPDRBK = 54.920 BOFLAP = -11.700
AILRON = .000 RUDDER = .000

RUN NO. 24/ 0 RM/L = 2.02 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	L/D	CN	CA	CLM	CBL	CYN	CY	CL	CD
4.630	-3.952	3.07712	-1.27426	-.13233	.08984	-.03258	.00512	-.00290	-.03541	-.12582	.09874
4.630	-1.906	3.07531	-1.00972	-.09282	.08581	-.02898	.00409	-.00315	-.03361	-.08971	.08885
4.630	.116	3.07083	-.65144	-.05327	.08214	-.02710	.00343	-.00343	-.03067	-.05344	.08203
4.630	2.144	3.07021	-.15902	-.00944	.07811	-.02684	.00278	-.00391	-.02892	-.01236	.07770
4.630	4.186	3.06958	.36644	.03326	.07362	-.02766	.00214	-.00439	-.02753	.02779	.07585
4.630	6.202	3.06937	.90589	.07994	.07103	-.03040	.00133	-.00437	-.02744	.07179	.07825
4.630	8.231	3.07185	1.34784	.12885	.06842	-.03480	.00094	-.00437	-.02871	.11575	.08587
4.630	10.280	3.07171	1.66586	.17797	.06741	-.03612	.00033	-.00437	-.02861	.16308	.09808
4.630	15.364	3.07498	1.96896	.31998	.06534	-.04233	-.00130	-.00457	-.02967	.29118	.14788
4.630	20.524	3.07817	1.88194	.50089	.06357	-.05291	-.00274	-.00478	-.03069	.44592	.23695
4.630	25.686	3.07757	1.66577	.68704	.06363	-.06904	-.00363	-.00478	-.03043	.59157	.35513
4.630	30.829	3.07883	1.43447	.89046	.06308	-.09087	-.00416	-.00572	-.02900	.73231	.51051
4.630	35.995	3.07927	1.23291	1.11912	.05963	-.11558	-.00507	-.00595	-.02873	.87039	.70597
4.630	GRADIENT	-.00099	.20326	.02036	-.00197	.00099	-.00036	-.00018	.00101	.01892	-.00280

04-20B LARC UPWT 1097 146 A/B CMB

(042109) (24 MAY 74)

REFERENCE DATA

WREF = 2000.0000 30.0000 1076.7000 INCHES
 LREF = 1296.3000 INCHES WREF = .0000 INCHES
 BREF = 936.6000 INCHES ZREF = 375.0000 INCHES
 SCALE = .0150 SCALE

PARAMETRIC DATA

BETA = .000 ELEVON = .000
 SPOILER = 54.920 BOFLAP = 16.300
 AILERON = .000 RUDDER = .000

RUN NO. 25/ 0 RW/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	L/D	CN	CA	CLM	CBL	CYN	CY	CL	CD
2.500	-4.272	.00420	-1.22230	-.15654	.10668	-.02229	-.00021	.00028	-.00226	-.14794	.12103
2.500	-2.196	.01166	-.77714	-.09164	.10902	-.03183	-.00033	.00006	-.00340	-.08739	.11245
2.500	-.127	.01915	-.26424	-.02963	.10739	-.03961	-.00024	.00017	-.00455	-.02839	.10749
2.500	1.891	.02010	.28612	.03436	.10839	-.04727	-.00007	-.00030	-.00429	.03075	.10749
2.500	4.040	.02256	.81932	.09908	.10474	-.05565	-.00010	-.00029	-.00468	.09137	.11153
2.500	6.106	.01963	1.25009	.16116	.10287	-.06401	-.00004	-.00030	-.00414	.14930	.11943
2.500	8.229	.02204	1.60266	.23025	.10123	-.07173	-.00017	-.00029	-.00474	.21339	.13314
2.500	10.297	.02177	1.83975	.30157	.09932	-.08035	-.00010	-.00029	-.00467	.27896	.15163
2.500	16.774	.02749	1.97565	.53055	.09424	-.10890	-.00011	-.00040	-.00585	.48078	.24335
2.500	20.796	.02837	1.84874	.64762	.08192	-.12719	-.00007	-.00026	-.00635	.61019	.33006
2.500	26.042	.03419	1.63120	.90116	.06563	-.15659	-.00026	-.00037	-.00755	.77174	.47312
2.500	31.496	.03964	1.40222	1.15223	.06015	-.18511	-.00048	-.00048	-.00871	.92657	.66078
2.500	36.763	.03495	1.19363	1.30557	.07651	-.21769	-.00034	-.00037	-.00777	1.05989	.88795
GRADIENT		.00216	.24707	.03059	-.00060	-.00394	.00002	-.00007	-.00029	.02865	-.00114

RUN NO. 26/ 0 RW/L = 2.01 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	L/D	CN	CA	CLM	CBL	CYN	CY	CL	CD
3.000	-3.842	.00595	-1.21153	-.12641	.09058	-.03621	.00010	.00041	-.00320	-.11998	.09903
3.000	-1.899	.00578	-.94646	-.08047	.08706	-.03570	.00008	.00041	-.00285	-.08561	.09045
3.000	.207	.00536	-.56771	-.04716	.08377	-.03567	.00007	.00042	-.00351	-.04746	.08360
3.000	2.214	.00619	-.06743	-.00234	.08146	-.03459	.00004	.00041	-.00315	-.00548	.08131
3.000	4.295	.00718	.47706	.04490	.07829	-.03684	.00002	.00023	-.00305	.03891	.08144
3.000	6.332	.00877	1.01178	.09527	.07533	-.04186	.00016	.00025	-.00401	.08638	.08537
3.000	8.408	.00999	1.41641	.14562	.07360	-.04569	-.00002	.00024	-.00395	.13330	.09411
3.000	10.463	.01059	1.72039	.20253	.07233	-.05217	.00010	.00006	-.00392	.18599	.10811
3.000	15.571	.01130	1.96281	.36461	.07369	-.07094	.00017	-.00012	-.00378	.33145	.16806
3.000	20.791	.01756	1.83825	.54861	.07444	-.09033	.00026	-.00027	-.00562	.48459	.26361
3.000	25.982	.01950	1.61898	.74703	.07523	-.11323	.00332	-.00026	-.00643	.63878	.39456
3.000	31.125	.02271	1.39858	.97421	.07634	-.14064	.00037	-.00042	-.00722	.79452	.56891
3.000	36.398	.02462	1.19550	1.22440	.07536	-.17630	.00071	-.00041	-.00602	.94094	.76707
GRADIENT		.00044	.20670	.02101	-.00152	.00019	-.00001	-.00002	-.00000	.01950	-.00217

0A-208 LARC UPWT 1097 140 A/B OMS

(R02109) (24 MAY 74)

REFERENCE DATA

WREF = 2090.0000 24.1 FT. WREF = 1076.7000 INCHES
LREF = 1290.3000 INCHES WREF = .0000 INCHES
BREF = 936.6000 INCHES ZREF = 375.0000 INCHES
SCALE = .0150 SCALE

PARAMETRIC DATA

BETA = .000 ELEVON = .000
SPDRK = 54.920 BDFLAP = 16.300
AILRON = .000 RUDDER = .000

RUN NO. 27/ 0 RUL = 2.03 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	BETA	L/D	CN	CA	CLM	CM	CYN	CY	CL	CD
4.630	-3.954	.00375	-1.20129	-.12325	.09040	-.03794	.00011	.00052	-.00398	-.11872	.09882
4.630	-1.912	.00476	-.92513	-.08556	.08651	-.03449	.00009	.00029	-.00357	-.04263	.08932
4.630	.100	.00577	-.50896	-.04617	.06179	-.03414	-.00014	.00005	-.00316	-.04632	.08171
4.630	2.154	.00726	-.08666	-.00228	.07860	-.03369	.00006	.00029	-.00400	-.00523	.07846
4.630	4.169	.00830	.39329	.03603	.07508	-.03420	.00003	.00006	-.00391	.03048	.07750
4.630	6.254	.00932	.94261	.06705	.07112	-.04068	.00000	.00017	-.00387	.07679	.08016
4.630	8.281	.00950	1.37606	.13366	.07030	-.04355	-.00002	.00017	-.00382	.12237	.08880
4.630	10.294	.00911	1.70476	.18903	.06918	-.04973	.00014	.00017	-.00377	.17362	.10185
4.630	12.379	.01260	1.99004	.34378	.06869	-.06117	.00028	-.00038	-.00491	.31325	.15741
4.630	14.517	.01499	1.86768	.52331	.07027	-.06274	.00001	-.00036	-.00600	.46548	.24923
4.630	16.607	.01722	1.64330	.72291	.07154	-.11049	.00032	-.00034	-.00712	.62077	.37764
4.630	18.623	.02056	1.41021	.93866	.07418	-.13882	.00022	-.00056	-.00821	.76818	.54466
4.630	20.686	.02291	1.20896	1.17695	.07421	-.17765	.00030	-.00054	-.00927	.90810	.75236
4.630	22.686	.02537	.19926	.01996	-.00190	.00020	-.00001	-.00003	-.00001	.01850	-.00263

GRADIENT

DATE 01 AUG 74

TABLE 1. SOURCE DATA - 01/2/80

(R02110) (24 MAY 74)

REFERENCES

ORSZ = 2000.0000 00.FT. WOPP = 1000.0000 INCHES
 LEST = 1200.0000 INCHES WOPP = .0000 INCHES
 ORSZ = 036.0000 INCHES ZWOP = 375.0000 INCHES
 SCALE = .0100 SCALE

BETA =	.000	ELEVON =	15.000
SPOONAK =	34.920	NOFLAP =	16.300
AILRON =	.000	RUDDER =	.000

PARAMETRIC DATA

SLAM NO. 28/0 SNU = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

NAME	ALPHA	BETA	L/D	CM	CA	CLM	CEL	CYM	CY	CL	CD
2.500	-4.286	.00590	-.87016	-.11627	.11506	-.05441	-.00023	.00042	-.00290	-.10739	.12341
2.500	.01502	-.40005	-.05147	-.05147	.11562	-.06475	-.00035	.00033	-.00476	-.04701	.11751
2.500	-.009	.00093	.11979	.01362	.00063	.01362	-.00032	.00004	.00250	.11536	.11759
2.500	1.079	.01603	.59824	.07422	.11491	-.06134	-.00001	.00007	-.00432	.07023	.11739
2.500	4.024	.02186	1.04855	.13969	.11463	-.01463	-.00014	.00016	-.00493	.13021	.12410
2.500	6.132	.02031	1.40447	.20325	.11415	-.10078	-.00007	-.00004	-.00486	.18990	.13521
2.500	6.207	.02106	1.67502	.27266	.11367	-.11120	.00001	.00009	-.00548	.25364	.15143
2.500	10.327	.01905	1.65416	.34762	.11309	-.12226	.00016	-.00005	-.00473	.32191	.17361
2.500	19.555	.02167	1.92385	.54195	.11430	-.15259	.00017	-.00004	-.00525	.49145	.25545
2.500	20.816	.02106	1.76459	.74906	.11496	-.16660	.00049	.00022	-.00575	.65934	.37365
2.500	26.116	.02633	1.55312	.97492	.11543	-.22466	.00071	.00023	-.00693	.82327	.53136
2.500	31.408	.03314	1.33922	1.21703	.11365	-.26529	.00070	.00001	-.00611	.97964	.73150
2.500	36.755	.02990	1.14103	1.47326	.11566	-.31172	.00099	.00037	-.00767	1.11140	.97403
GRANDT	.00160		.03216	.03032	-.00006	-.00435	.00002	-.00007	-.00016	.02844	.00007

[illegible]

PARAM	ALPHA	BETA	L/D	CN	CA	CLM	CBL	CYN	CY	CL	CD
3.998	-3.879	-0.0102	-1.03965	-11.090	0.8306	-0.4946	0.0007	0.0076	-0.0219	-1.0435	-1.0037
3.998	-1.830	-0.0046	-7.74479	-0.0786	0.0132	-0.4759	0.0003	0.0074	-0.0502	-0.0871	0.0360
3.998	3.01	-0.0016	-3.1944	-0.2770	0.4003	-0.5019	0.0002	0.0037	-0.0051	-1.32809	0.0794
3.998	2.848	-0.0030	-1.9778	0.0206	0.0612	-0.5290	0.001	0.0056	-0.0116	0.01718	0.0685
3.998	4.250	-0.0043	-0.6316	0.0379	0.6507	-0.5370	-0.0004	0.0056	-0.0105	0.05143	0.0692
3.998	6.337	-0.0054	1.16499	0.1222	0.8339	-0.8292	0.0024	0.0056	-0.0101	0.11227	0.0637
3.998	6.377	-0.0023	1.50593	0.17606	0.8301	-0.7163	0.0007	0.0056	-0.0197	0.16209	0.10778
3.998	18.427	0.0506	1.74609	0.2655	0.8318	-0.8345	0.0019	0.0039	-0.0195	0.21759	0.12461
3.998	15.66	0.0539	1.89723	0.40654	0.8660	-1.1139	0.0026	0.0041	-0.0282	0.37049	0.19539
3.998	20.745	0.0481	1.76206	0.5042	0.9467	-1.4393	0.0048	0.0024	-0.0569	0.54637	0.30440
3.998	29.941	0.11213	1.54082	0.82421	1.0181	-1.7672	0.0053	0.0007	-0.0453	0.89664	0.43209
3.998	31.162	0.1700	1.32940	1.09933	1.0442	-2.2202	0.0074	0.0010	-0.0636	1.65994	0.64811
3.998	36.379	0.2691	1.13732	1.37964	1.1942	-2.8733	0.0110	0.0031	-0.0616	1.00077	0.87994
3.998	69.03297	0.8023	0.2197	0.2209	-0.0104	-0.0112	-0.0001	-0.0003	0.0010	0.02050	-0.00135

04-208 LARC UPAT 1987 140 4/8 ORB

(002110) (24 MAY 74)

REFERENCE DATA

WIND = 2000.0000 00.FT. WIND = 1890.7000 INCHES
 LIFT = 1000.3000 INCHES WIND = .0000 INCHES
 WIND = 000.0000 INCHES WIND = 315.0000 INCHES
 SCALE = .0110 SCALE

PARAMETRIC DATA

BETA = .000 ELEVON = 15.000
 SPORAK = 54.920 BOFLAP = 16.300
 AIRLON = .000 RUDDER = .000

BLM NO. 30/ 0 BWL = 2.03 GRADIENT INTERVAL = -3.00/ 5.00

WIND	ALPHA	BETA	L/D	CM	CA	CLM	CM	CYN	CY	CL	CD
4.030	-3.946	-.00278	-1.10005	-1.1750	.00106	-.04605	.00006	.00071	-.00142	-.11070	.00001
4.030	-1.921	-.00176	-.77073	-.07341	.00002	-.04500	.00003	.00048	-.00101	-.07039	.00133
4.030	.116	-.00106	-.35141	-.02903	.00408	-.04721	.00000	.00047	-.00059	-.02981	.00482
4.030	2.147	-.00194	.00023	.00065	.00171	-.02000	-.00002	.00046	-.00017	.00658	.00201
4.030	4.175	.00179	.00700	.00079	.07901	-.02581	-.00003	.00025	-.00135	.05043	.00373
4.030	6.204	.00167	1.18277	.11210	.07772	-.02600	-.00006	.00025	-.00130	.10309	.00943
4.030	8.236	.00161	1.98142	.16303	.07752	-.02608	.00011	.00025	-.00127	.15025	.10007
4.030	10.260	.00151	1.79077	.22254	.07796	-.07601	.00027	.00025	-.00122	.20504	.11645
4.030	12.482	.00094	1.93045	.30048	.08196	-.10556	.00059	.00027	-.00237	.35372	.18248
4.030	14.501	.00074	1.78033	.50616	.09879	-.13366	.00010	.00006	-.00348	.51751	.28838
4.030	16.606	.00074	1.96535	.70714	.09827	-.17277	.00040	.00007	-.00461	.67964	.43226
4.030	18.000	.01500	1.34344	1.02490	.10479	-.25046	.00046	.00009	-.00573	.82515	.61495
4.030	20.000	.01322	1.15156	1.27333	.11055	-.26785	.00076	.00034	-.00580	.96504	.83803
4.030	22.000	.00044	.21005	.02124	-.00155	-.00005	-.00001	-.00005	.00005	.01970	-.00204

END OF DATA

04-208 LARC UPWT 1087 140 A/B CRB + DUMMY STING

(A02102) (24 MAY 74)

REFERENCE DATA

REF = 2400.0000 34.471, WARP = 1076.7000 INCHES
 LREF = 1290.1000 INCHES WARP = .0000 INCHES
 REF = 936.6600 INCHES WARP = 375.0000 INCHES
 SCALE = .0150 SCALE

PARAMETRIC DATA

BETA = 3.000 ELEVON = .000
 SPOBRK = 54.920 ROLAP = -11.700
 AIRCON = .000 RUDDER = .000

RUN NO. 2/ 0 RW/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	XCP/L	L/D	CPB1	CPB2	CPB3	CPV1	CPV2	CPV3	Q (PSF)	BETA
2.500	-4.313	.61202	-1.44371	-.15015	-.13265	-.14131	-.17715	-.17905	-.13656	434.63955	3.20543
2.500	-2.215	.54861	-.97906	-.15450	-.15488	-.15232	-.17715	-.18245	-.14315	434.63959	3.19613
2.500	-.141	.41646	-.43550	-.15895	-.16147	-.15889	-.17931	-.18681	-.14095	434.76177	3.19086
2.500	1.962	1.32261	.14722	-.15902	-.16813	-.16553	-.18153	-.19685	-.14321	435.14596	3.18635
2.500	4.042	.84264	.67303	-.16120	-.17472	-.16771	-.18586	-.19121	-.14101	435.06904	3.18671
2.500	6.110	.78985	1.15890	-.16340	-.17033	-.16992	-.18567	-.19340	-.14541	435.14596	3.19021
2.500	8.232	.74234	1.53947	-.16341	-.16813	-.17211	-.19022	-.19340	-.15633	435.17147	3.19202
2.500	10.274	.72386	1.86261	-.16556	-.17030	-.17647	-.19237	-.19338	-.16566	434.91541	3.19195
2.500	15.559	.70753	2.04409	-.17214	-.17469	-.18085	-.19453	-.18682	-.14753	434.83859	3.20425
2.500	20.866	.69983	1.89386	-.17219	-.17693	-.18089	-.19456	-.19341	-.16071	435.22268	3.22054
2.500	26.135	.69533	1.66279	-.16554	-.16587	-.16226	-.13367	-.16057	-.13657	434.73617	3.23193
2.500	31.364	.69329	1.42900	-.16114	-.16807	-.16986	-.13801	-.15182	-.14750	434.71056	3.22774
2.500	36.791	.69261	1.21224	-.16335	-.17028	-.16986	-.14237	-.15183	-.16064	434.76177	3.23336
GRADIENT		.05630	.25661	-.00127	-.00275	-.00316	-.00105	-.00147	-.00043	.05400	-.00197

RUN NO. 6/ 0 RW/L = 2.01 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	XCP/L	L/D	CPB1	CPB2	CPB3	CPV1	CPV2	CPV3	Q (PSF)	BETA
3.950	-3.896	.56623	-1.28431	-.06425	-.06826	-.08977	-.06400	-.06603	-.05019	297.18516	3.11258
3.950	-1.858	.53936	-1.04024	-.06424	-.06825	-.08977	-.06399	-.06922	-.05658	297.08518	3.10918
3.950	-.183	.47177	-.67864	-.06745	-.07147	-.08977	-.06399	-.06923	-.05338	297.12363	3.10461
3.950	2.224	-.06911	-.21142	-.06745	-.07469	-.08977	-.06717	-.06922	-.05978	297.10825	3.10122
3.950	4.271	.57294	.32361	-.06746	-.07148	-.08299	-.06718	-.06923	-.06299	297.17746	3.10052
3.950	6.309	.79620	.78570	-.06746	-.07148	-.09620	-.07036	-.06923	-.05979	297.14670	3.10030
3.950	8.344	.74692	1.26139	-.07066	-.07469	-.09299	-.07035	-.07242	-.04377	297.06979	3.10004
3.950	10.394	.72438	1.56455	-.07067	-.07148	-.09620	-.07354	-.07563	-.05979	297.17746	3.10132
3.950	15.559	.70108	1.90353	-.07067	-.07470	-.09620	-.07354	-.07243	-.05659	297.20054	3.10830
3.950	20.750	.68914	1.83647	-.07067	-.07147	-.09941	-.07671	-.07882	-.06299	297.10056	3.11626
3.950	25.926	.68767	1.62916	-.07066	-.07469	-.09941	-.07671	-.07882	-.06939	297.08518	3.11881
3.950	31.128	.68603	1.41159	-.07067	-.07148	-.09941	-.07036	-.07243	-.06939	297.20054	3.12254
3.950	36.359	.68579	1.21313	-.06746	-.06826	-.08335	-.05765	-.06923	-.06940	297.22361	3.12502
GRADIENT		.00913	.19813	-.00047	-.00063	-.00032	-.00047	-.00031	-.00141	.00038	-.00157

OA-20B LARC UPWT 1097 140 A/B O&B + DUMMY STING

(AQ'102) (24 MAY 74)

REFERENCE DATA

BREF = 2090.0000 94.41
 LREF = 1290.3000 INCHES
 BREF = 936.6800 INCHES
 SCALE = .0150 SCALE

PARAMETRIC DATA

BETA = 3.000 ELEVON = .000
 SPOBRK = 94.920 BDFLAP = -11.700
 AILRON = .000 RUDDER = .000

RUN NO. 4/ 0 RWL = 2.02 GRADIENT INTERVAL = -5.00/ 5.00

WALH	ALPHA	XCP/L	L/D	CPB1	CPB2	CPB3	CPV1	CPV2	CPV3	Q(PSF)	BETA
4.630	-3.958	.55587	-1.24920	-.04408	-.04923	-.07666	-.03958	-.04631	-.04244	132.86082	3.07941
4.630	-1.925	.53578	-.98254	-.04404	-.04920	-.07667	-.03953	-.04627	-.04239	232.44170	3.07484
4.630	.110	.45334	-.63254	-.04404	-.04920	-.07667	-.03953	-.05036	-.04239	232.44170	3.07312
4.630	2.130	-.44409	-.15541	-.04818	-.04923	-.08075	-.03958	-.05039	-.04652	232.86082	3.07249
4.630	4.160	1.02116	.28998	-.04815	-.04920	-.08078	-.04380	-.05036	-.04648	232.44170	3.07187
4.630	6.198	.79435	.82687	-.04815	-.04920	-.07667	-.04766	-.05036	-.04239	232.44170	3.07165
4.630	8.221	.75101	1.25722	-.04815	-.04920	-.07667	-.04766	-.05036	-.04239	232.44170	3.07418
4.630	10.276	.72321	1.59852	-.04815	-.04920	-.07667	-.04766	-.05445	-.04239	232.44170	3.07399
4.630	15.367	.69215	1.95050	-.05225	-.04920	-.08078	-.05173	-.05445	-.04239	232.44170	3.07720
4.630	20.514	.66591	1.87079	-.05225	-.04920	-.08488	-.05173	-.05854	-.05057	232.44170	3.08441
4.630	25.642	.68736	1.65649	-.05225	-.04920	-.08078	-.05173	-.05854	-.05057	232.44170	3.07981
4.630	30.820	.68755	1.42684	-.05225	-.05351	-.08078	-.05173	-.05445	-.05057	232.44170	3.08377
4.630	35.978	.68766	1.23007	-.04815	-.04508	-.06436	-.03953	-.04627	-.04648	232.44170	3.08417
GRADIENT		-.00240	.19245	-.00060	.00000	-.00061	-.00610	-.00660	-.00060	-.02071	-.00086

04-208 LARC UPWT 1087 14U A/B CR8 +DUMMY STING

(A02103) (24 MAY 74)

REFERENCE DATA

WWT = 2000.0000 94.00 FT. WWT = 1076.7000 INCHES
 LWT = 1200.3000 INCHES WWT = .0000 INCHES
 BWT = 936.6000 INCHES ZWT = 375.0000 INCHES
 SCALE = .0150 SCALE

PAR/METRIC DATA

BETA = .000 ELEVON = .000
 SPORRK = 54.920 BOFLAP = 16.300
 AIRRON = .000 RUDDER = .000

RUN NO. 7/ 0 RV/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	XCP/L	L/D	CPB1	CPB2	CPB3	CPV1	CPV2	CPV3	Q (PSF)	BETA
2.500	-4.289	.99593	-1.25032	-.14556	-.15915	-.16004	-.16994	-.16235	-.09902	434.91541	.02702
2.500	-2.193	.92805	-.79135	-.14990	-.16379	-.16746	-.17215	-.16239	-.11002	435.14506	.03142
2.500	-.128	.16447	-.27126	-.15000	-.16799	-.16986	-.17432	-.17113	-.10566	435.19707	.03346
2.500	1.954	1.16840	.27046	-.15217	-.16798	-.17193	-.17431	-.17548	-.09251	435.06904	.03983
2.500	4.038	.05823	.79365	-.15441	-.17021	-.17187	-.17968	-.17988	-.08604	435.32510	.04070
2.500	6.104	.79402	1.25984	-.15443	-.16582	-.17196	-.18303	-.17771	-.07951	435.40192	.04322
2.500	6.238	.76143	1.62748	-.15878	-.16360	-.17624	-.18301	-.17769	-.05322	435.22268	.04295
2.500	10.291	.74446	1.87519	-.16098	-.16580	-.18082	-.18518	-.17551	-.05324	435.24829	.04539
2.500	15.354	.72503	2.01395	-.17413	-.17019	-.19158	-.19169	-.17768	-.11222	435.19707	.04197
2.500	20.815	.71824	1.95260	-.18071	-.17898	-.19815	-.18083	-.18205	-.13406	435.12026	.04661
2.500	26.128	.71323	1.62636	-.17854	-.17021	-.18283	-.12009	-.16897	-.12318	435.35071	.04854
2.500	31.434	.70989	1.40358	-.16536	-.16579	-.17623	-.13090	-.15802	-.14281	435.17147	.05689
2.500	36.682	.70856	1.19356	-.17196	-.16802	-.18283	-.13311	-.14932	-.16469	435.35071	.05724
2.500	GRADIENT	.05579	.24756	-.00096	-.00117	-.00127	-.00094	-.00231	-.00209	.03573	.00164

RUN NO. 8/ 0 RV/L = 2.01 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	XCP/L	L/D	CPB1	CPB2	CPB3	CPV1	CPV2	CPV3	Q (PSF)	BETA
3.950	-3.895	.54376	-1.20446	-.06965	-.06723	-.08234	-.05979	-.06500	-.03634	296.96982	.03723
3.950	-1.889	.51068	-.82537	-.06985	-.06724	-.09198	-.05980	-.06501	-.03956	297.08210	.04906
3.950	.182	.37722	-.53350	-.06966	-.07046	-.09198	-.05980	-.06502	-.03637	297.10825	.01635
3.950	2.233	12.61759	-.02587	-.06986	-.06725	-.09198	-.05981	-.06182	-.02678	297.16977	.01621
3.950	4.286	.93109	.52106	-.06966	-.07047	-.09519	-.06299	-.06822	-.02998	297.19285	.01993
3.950	6.325	.80212	1.02008	-.06966	-.07369	-.08877	-.06516	-.07462	-.02037	297.13132	.01978
3.950	8.341	.76230	1.42805	-.06966	-.07047	-.09198	-.06935	-.06822	-.03958	297.16208	.01964
3.950	10.450	.74125	1.74480	-.07287	-.07046	-.09198	-.06934	-.07141	-.05237	297.09287	.02063
3.950	15.574	.71973	1.97842	-.07287	-.07369	-.09198	-.06935	-.07462	-.05238	297.16208	.02134
3.950	20.770	.70960	1.85533	-.07287	-.07047	-.09198	-.06935	-.07462	-.05878	297.14670	.02625
3.950	25.975	.70413	1.62025	-.07287	-.07047	-.09198	-.06935	-.07462	-.06518	297.18516	.02951
3.950	31.139	.70295	1.39809	-.07288	-.06725	-.09198	-.06617	-.07462	-.06839	297.23899	.03548
3.950	36.367	.70276	1.19376	-.07287	-.06724	-.08555	-.05026	-.06502	-.06838	297.11594	.03643
3.950	GRADIENT	.82905	.21501	-.00000	-.00032	-.00125	-.00031	-.00016	.00125	.02704	-.00330

CA-208 LARC UPWT 1097 140 A/B CDB *DUMMY STING (A02103) (24 MAY 74)

REFERENCE DATA

WREF = 2890.0000 30.FT. WREF = 1076.7000 INCHES
 LREF = 1290.3000 INCHES WREF = .0000 INCHES
 BREF = 936.6000 INCHES ZREF = 375.0000 INCHES
 SCALE = .0150 SCALE

PARAMETRIC DATA

BETA = .000 ELEVON = .000
 SPOBRK = 54.920 BOFLAP = 16.300
 ALLRON = .000 RUDDER = .000

RUN NO. 9/ 0 R/V/L = 2.03 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	WCP/L	L/O	CP81	CP82	CP83	CPV1	CPV2	CPV3	Q (PSE)	BETA
4.630	-3.946	.55321	-1.24616	-.05099	-.04794	-.07946	-.03424	-.04502	-.03298	232.87406	.01490
4.630	-1.829	.52157	-.92798	-.05099	-.04383	-.07946	-.03424	-.04502	-.03298	232.87406	.01477
4.630	.118	.34806	-.52972	-.05099	-.04794	-.07946	-.03829	-.04502	-.02890	232.87406	.01466
4.630	2.136	-4.67642	-.06574	-.05099	-.04794	-.06717	-.03829	-.04502	-.02890	232.87406	.01728
4.630	4.181	.93750	.45322	-.05099	-.05205	-.06717	-.04235	-.04910	-.02890	232.87406	.01829
4.630	6.220	.78488	.99363	-.05099	-.04794	-.06717	-.04235	-.04910	-.02481	232.87406	.01817
4.630	8.211	.76078	1.40821	-.05099	-.04794	-.07946	-.04641	-.05318	-.03706	232.87406	.01810
4.630	10.311	.73574	1.77054	-.05099	-.04794	-.07946	-.04641	-.04910	-.04115	232.87406	.02067
4.630	15.416	.71294	2.01117	-.05099	-.04794	-.08356	-.05047	-.05318	-.04523	232.87406	.02261
4.630	20.541	.70666	1.84141	-.05099	-.04794	-.08356	-.05047	-.04910	-.04932	232.87406	.02492
4.630	25.671	.70539	1.64610	-.05099	-.04794	-.08356	-.05047	-.05318	-.04932	232.87406	.02723
4.630	30.769	.70448	1.41602	-.05099	-.04794	-.07946	-.05047	-.05318	-.04932	232.87406	.03065
4.630	35.843	.70542	1.21437	-.05099	-.04794	-.07946	-.03829	-.04910	-.04932	232.87406	.03289
GRADIENT		-.21825	.21030	.00000	-.00060	.00180	-.00099	-.00040	.00060	-.00000	.00045

DATE 01 AUG 74

TABULATED SOURCE DATA - QAZ08

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OA-208 LARC UPWT 1097 140 A/B 288 +COUNT STING

(A02104) (24 MAY 74)

REFERENCE DATA

SWEP = 2890.0000 84.FT. 389P = 1076.7000 INCHES
 LNEP = 1290.3000 INCHES 179P = .0000 INCHES
 SWEP = 936.6000 INCHES 289P = 375.0000 INCHES
 SCALE = .0150 SCALE

BETA = .000 ELEVON = 15.000
 SPDRK = 54.920 BDFLAP = 16.300
 ALLROM = .000 RUDDER = .000

PARAMETRIC DATA

RUN NO. 10/ 0 RWL = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	XCP/L	L/D	CPB1	CPB2	CPB3	CPV1	CPV2	CPV3	Q(PSF)	BETA
2.500	-4.295	.47828	-.91159	-.14975	-.18558	-.16064	-.16748	-.15993	-.11190	434.83859	.03233
2.500	-2.207	.21375	-.43108	-.15199	-.17001	-.16945	-.17403	-.16215	-.12290	435.09465	.04140
2.500	-.124	3.70236	.07634	-.15198	-.17680	-.17164	-.17403	-.17009	-.11852	435.04344	.03700
2.500	1.964	1.06473	.58164	-.15419	-.17441	-.17164	-.17621	-.17308	-.09886	435.09465	.05956
2.500	4.003	.69586	1.02179	-.15855	-.17659	-.17381	-.17836	-.17961	-.09662	434.91541	.05454
2.500	6.181	.83243	1.41425	-.15629	-.17214	-.17597	-.18266	-.17320	-.09213	434.55693	.05861
2.500	8.232	.80003	1.68611	-.15644	-.16566	-.17607	-.18276	-.17331	-.05527	435.42753	.05724
2.500	10.311	.77828	1.87422	-.15644	-.16347	-.17827	-.18710	-.17313	-.05092	435.47874	.05693
2.500	15.577	.75388	1.94109	-.16739	-.17225	-.18921	-.19360	-.17529	-.10986	435.35071	.03728
2.500	20.823	.74251	1.76731	-.17178	-.17665	-.19360	-.18276	-.16875	-.13390	435.42753	.04201
2.500	26.226	.73585	1.54696	-.16726	-.16772	-.17375	-.13480	-.15986	-.12055	434.42890	.05361
2.500	31.474	.73140	1.33397	-.15949	-.16333	-.16938	-.13918	-.15770	-.13371	434.55693	.05672
2.500	36.706	.72942	1.13870	-.16516	-.17221	-.18261	-.14363	-.15997	-.16225	435.09465	.05626
GRADIENT	.08163		.23498	-.00095	-.00127	-.00138	-.00115	-.00242	.00263	.00752	.00302

RUN NO. 11/ 0 RWL = 2.01 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	XCP/L	L/D	CPB1	CPB2	CPB3	CPV1	CPV2	CPV3	Q(PSF)	BETA
3.950	-3.907	.49014	-1.06858	-.06296	-.06700	-.09170	-.06236	-.06149	-.03605	297.10825	.01561
3.950	-1.825	.39837	-.75626	-.06295	-.06700	-.08848	-.06237	-.06148	-.03924	297.06979	.01546
3.950	.191	-.00594	-.32939	-.06617	-.07022	-.08848	-.06236	-.06149	-.03924	297.09287	.01919
3.950	2.247	1.61953	.19647	-.06617	-.07022	-.08848	-.06237	-.05828	-.03604	297.07749	.01902
3.950	4.265	.95492	.72283	-.06616	-.07021	-.09170	-.06236	-.06468	-.02641	296.97751	.01890
3.950	6.320	.85118	1.17204	-.06617	-.07022	-.09170	-.06576	-.06469	-.02324	297.09287	.01881
3.950	8.372	.80289	1.54060	-.06616	-.07344	-.09812	-.06893	-.06788	-.03283	297.03134	.02135
3.950	10.433	.78011	1.77803	-.06617	-.07344	-.09812	-.07212	-.06788	-.05525	297.07749	.02237
3.950	15.673	.75070	1.92497	-.06616	-.07022	-.09491	-.07211	-.07108	-.05204	297.05441	.02585
3.950	20.702	.73839	1.77475	-.06617	-.07344	-.09491	-.07211	-.07108	-.05525	297.06210	.02810
3.950	25.896	.73056	1.54675	-.06616	-.07021	-.09491	-.07211	-.07108	-.05844	297.02365	.03296
3.950	31.056	.72749	1.33493	-.06616	-.07021	-.09170	-.07211	-.07108	-.06165	297.03134	.03515
3.950	36.423	.72461	1.13358	-.06616	-.07022	-.09170	-.06893	-.07108	-.06485	297.05441	.03724
GRADIENT	.10545		.22110	-.00047	-.00047	.00000	.00000	-.00015	.00110	-.01242	.00050

DATE 01 AUG 74

TABULATED SOURCE DATA - 04208

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04-208 LAKE UPWT 1097 140 A/D ORB +DUMMY STING

(A02104) (24 MAY 74)

REFERENCE DATA

SREF = 2890.0000 80.FT. 1000P = 1076.7000 INCHES
 LREF = 1290.3000 INCHES 1000P = .0000 INCHES
 BREF = 936.8000 INCHES 2000P = 375.0000 INCHES
 SCALE = .0150 SCALE

PARAMETRIC DATA

BETA = .000 ELEVON = 15.000
 SPOBRK = 54.120 BDFLAP = 16.300
 AILRON = .000 RUDDER = .000

RUN NO. 12/ 0 RM/L = 2.03 GRADIENT INTERVAL = -3.00/ 5.00

MACH	ALPHA	WCP/L	L/D	CPB1	CPB2	CPB3	CPV1	CPV2	CPV3	@(PSF)	BETA
4.630	-3.967	.50684	-1.10504	-.04251	-.04768	-.07907	-.03785	-.04059	-.02858	233.46536	.01654
4.630	-1.936	.43726	-.80170	-.04251	-.04358	-.08316	-.03785	-.04059	-.02858	233.46536	.01757
4.630	.099	.08820	-.36333	-.04251	-.04768	-.07499	-.03785	-.04059	-.02451	233.46536	.017-5
4.630	2.095	1.32579	.13388	-.04251	-.04768	-.07499	-.03785	-.04059	-.02451	233.46536	.02009
4.630	4.166	.98100	.61244	-.04251	-.04768	-.07499	-.04190	-.04466	-.02043	233.46536	.02111
4.630	6.223	.84841	1.16412	-.04251	-.05178	-.07499	-.04594	-.04466	-.02043	233.46536	.02102
4.630	8.209	.79997	1.55077	-.04246	-.04765	-.08319	-.04591	-.04462	-.02851	233.46536	.02091
4.630	10.286	.77841	1.77867	-.04251	-.04768	-.08316	-.04594	-.04466	-.03266	233.46536	.02352
4.630	15.408	.74718	1.94620	-.04246	-.04765	-.08319	-.04591	-.04870	-.04076	233.46536	.02435
4.630	20.595	.73580	1.79697	-.04246	-.04765	-.08319	-.04996	-.04870	-.04484	233.46536	.02937
4.630	25.789	.73081	1.56363	-.04246	-.04354	-.08319	-.04996	-.04870	-.04484	233.46536	.03174
4.630	30.881	.72922	1.34870	-.04251	-.04768	-.07907	-.04999	-.04873	-.04895	233.46536	.03135
4.630	36.002	.72864	1.14999	-.04251	-.04358	-.07499	-.04594	-.04466	-.04488	233.46536	.03320
GRADIENT			.21531	.00000	-.00020	.00080	-.00040	-.00040	.00100	.00000	.00057

DATE 01 AUG 74

TABULATED SOURCE DATA - 04208

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CA-208 LARC UPWT 1097 140 A/B CRB YOUNG STING

(A02105) (24 MAY 74)

REFERENCE DATA

0427 = 2000.0000 84.0000 1076.7000 INCHES
 LREF = 1290.3000 INCHES YREF = .0000 INCHES
 0427 = 936.6000 INCHES ZREF = 375.0000 INCHES
 SCALE = .0150 SCALE

PARAMETRIC DATA

BETA = .000 ELEVON = -40.000
 SPYMARK = 54.920 ROFLAP = -11.700
 AILRON = .000 RUDDER = .000

RUN NO. 13/ 0 RVAL = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	XCP/L	L/D	CPB1	CPB2	CPB3	CPV1	CPV2	CPV3	Q (PSF)	BETA
2.900	-4.371	.73006	-1.59059	-.12960	-.13229	-.13609	-.14924	-.15717	-.06757	434.65935	-.00274
2.900	-2.261	.74124	-1.34267	-.13622	-.14332	-.15148	-.16013	-.16375	-.08949	434.78738	.00473
2.900	-1.180	.75711	-1.05471	-.14500	-.15652	-.15806	-.16448	-.16812	-.09824	434.78738	.00835
2.900	1.073	.79963	-.62204	-.14500	-.16093	-.16026	-.16883	-.17468	-.10043	434.78738	.01038
2.900	3.964	1.49362	-.13541	-.14717	-.16751	-.16463	-.17098	-.17685	-.09601	434.63374	.01027
2.900	6.074	.57441	.36462	-.15376	-.16311	-.16682	-.17750	-.17685	-.09820	434.65935	.01047
2.900	8.154	.63216	.80678	-.15597	-.16532	-.17122	-.17968	-.17467	-.06540	434.71056	.01286
2.900	10.261	.64502	1.15437	-.16474	-.16971	-.17780	-.18185	-.17466	-.06101	434.65935	.01527
2.900	15.503	.66356	1.70704	-.16250	-.16967	-.18216	-.17094	-.15711	-.08934	434.32647	.01944
2.900	20.648	.66940	1.74278	-.17134	-.17632	-.18439	-.14056	-.17467	-.11791	434.71056	.01750
2.900	26.065	.67002	1.59067	-.17134	-.17412	-.17561	-.15621	-.16374	-.11353	434.71056	.02423
2.900	31.357	.66970	1.34804	-.17133	-.17632	-.18658	-.14707	-.16810	-.13759	434.65935	.02821
2.900	36.676	.66989	1.19297	-.16697	-.17634	-.17783	-.15625	-.15502	-.16388	434.88980	.03208
		.07620	.17538	-.00211	-.00423	-.00317	-.00251	-.00242	-.00326	-.00243	.00152

RUN NO. 14/ 0 RVAL = 2.01 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	XCP/L	L/D	CPB1	CPB2	CPB3	CPV1	CPV2	CPV3	Q (PSF)	BETA
3.950	-3.925	.67120	-1.48631	-.05922	-.06019	-.07509	-.05618	-.06068	-.00964	297.01596	-.00383
3.950	-1.840	.67912	-1.33727	-.05922	-.06220	-.07830	-.05819	-.06388	-.01606	297.06210	-.00401
3.950	.172	.68602	-1.06153	-.06243	-.06019	-.08794	-.05818	-.06388	-.01284	296.99289	-.00145
3.950	2.197	.69113	-.69035	-.06243	-.06019	-.08794	-.05818	-.06388	-.02566	297.02365	-.00045
3.950	4.250	.69797	-.22142	-.06243	-.06341	-.08794	-.06136	-.06388	-.02885	296.99289	.00051
3.950	6.295	.64009	.27981	-.06244	-.06664	-.09115	-.06137	-.06709	-.02247	297.06979	.00422
3.950	8.357	.65648	.73980	-.06564	-.06985	-.09115	-.06454	-.06708	-.04165	296.94674	.00289
3.950	10.396	.66431	1.12676	-.06564	-.06985	-.09115	-.06772	-.06708	-.05126	296.96212	.00389
3.950	15.541	.66384	1.63785	-.06885	-.07307	-.09115	-.06771	-.07027	-.04804	296.80831	.00570
3.950	20.725	.66341	1.71522	-.06887	-.06987	-.09115	-.07091	-.07029	-.05769	297.13132	.01053
3.950	25.907	.66323	1.56818	-.06887	-.06987	-.09115	-.07091	-.07349	-.06409	297.16208	.01373
3.950	31.099	.66273	1.38020	-.06886	-.06986	-.08794	-.06772	-.07028	-.06408	297.02365	.01689
3.950	36.332	.66288	1.19297	-.06565	-.06986	-.08151	-.05818	-.06388	-.06408	297.00827	.02157
		.01398	.15544	-.00047	-.00031	-.00173	-.00031	-.00031	-.00235	-.00243	.00060

CA-202 , ARC UPWT 1097 140 A/ RB +CUMV STING

(A02105) (501204) (24 MAY 74)

REFERENCE DATA

GRF = 2000.0000 24.FT. 1000 = 1076.7000 INCHES
 LRF = 1290.3000 INCHES 1000 = .0000 INCHES
 BRF = 936.6000 INCHES 2000 = 375.0000 INCHES
 SCALE = .0150 SCALE

PARAMETRIC DATA

BETA	=	.000	ELEVON	=	-40.000
SPOBRK	=	54.920	BDFLAP	=	-11.700
AILRON	=	.000	RUDDER	=	.000

RUN NO. 19/ 0 BVAL = 2.09 GRADIENT INTERVAL = -5.00/ 5.00

NAME	A. PHA	XCF/L	L/D	CFB1	CFB2	CFB3	CPV1	CPV2	CPV3	Q (P5F)	BETA
4.030	-1.984	67500	-1.43231	-03772	-04309	-07021	-03627	-03953	-01530	233.09982	-0.0287
4.030	-1.925	67954	-1.27815	-03772	-04309	-07021	-03627	-03953	-01530	233.09982	-0.0289
4.030	0.066	67152	-1.03266	-03772	-04309	-07021	-03627	-03953	-01122	233.09982	0.0189
4.030	2.122	64878	-0.86069	-03772	-04309	-07021	-04032	-03953	-01122	233.09982	0.0062
4.030	4.2501	64501	-0.22553	-03772	-04720	-07021	-04032	-04361	-01930	233.09982	0.0169
4.030	4.154	67369	0.26454	-04181	-04720	-07021	-04437	-03953	-01930	233.09982	0.0017
4.030	0.177	67369	0.26454	-04181	-04720	-07431	-04437	-04361	-02754	233.09982	0.0416
4.030	0.225	67202	0.75909	-04181	-04720	-07431	-04437	-04768	-03570	233.09982	0.0515
4.030	10.256	66749	1.15422	-04181	-05130	-07431	-04843	-04768	-04386	233.09982	0.0590
4.030	15.366	66182	1.69801	-04181	-05130	-07431	-04843	-05176	-04386	233.09982	0.1200
4.030	20.500	66364	1.76565	-04181	-05130	-06203	-04843	-05176	-04794	233.09982	0.1423
4.030	25.656	66453	1.60247	-04181	-05130	-06203	-04843	-05176	-04794	233.09982	0.1371
4.030	30.793	66516	1.39698	-04181	-05130	-06203	-04843	-05176	-04794	233.09982	0.1968
4.030	35.971	66674	1.20786	-04181	-04720	-06203	-04437	-04361	-04794	233.09982	0.0063
GAO1ENT		-0.00033	1.14863	-0.00000	-0.00040	0.00000	-0.00060	-0.00040	0.00020	-0.00000	

04-200 LARC UPWT 1007 140 A/B CRB

(A02106) (24 MAY 74)

REFERENCE DATA

WGT = 8000.0000 80.0 FT. WHP = 1076.7000 INCHES
 LREF = 1290.3000 INCHES WHP = .0000 INCHES
 WGT = 930.6000 INCHES ZHP = 375.0000 INCHES
 SCALE = .0150 SCALE

BETA = .000 ELEVON = -40.000
 SPOILER = 54.920 BOFLAP = -11.700
 AIRLON = .000 RUDDER = .000

PARAMETRIC DATA

RUN NO. 16/ 0 RV/L = 2.03 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	WCP/L	L/D	CPB1	CPB2	CPB3	CPV1	CPV2	CPV3	Q (PSF)	BETA
2.500	-4.361	.75016	-1.57156	-.14339	-.13507	-.13012	-.14564	-.15346	-.00256	434.50233	-.00364
2.500	-2.254	.74142	-1.35434	-.14118	-.13945	-.14328	-.15650	-.15743	-.01566	434.50572	.00472
2.500	-.188	.75085	-1.04341	-.14553	-.14602	-.14943	-.16082	-.16217	-.02432	434.50087	.00450
2.500	1.901	.79101	-.63992	-.14786	-.15026	-.15215	-.16310	-.16883	-.02684	435.01783	.00929
2.500	3.993	1.54339	-.13506	-.15014	-.15504	-.15662	-.16751	-.17108	-.02705	435.47874	.01022
2.500	6.064	.57069	.34854	-.15011	-.15060	-.15658	-.16965	-.17542	-.03351	435.27389	.01316
2.500	8.169	.63393	.79415	-.15015	-.15264	-.15881	-.17402	-.17545	-.04017	435.50434	.01474
2.500	10.265	.64469	1.14911	-.15451	-.15942	-.15879	-.17835	-.16889	-.04449	435.40192	.01690
2.500	15.516	.86393	1.89396	-.16787	-.16821	-.17633	-.17818	-.17762	-.06634	435.42753	.01880
2.500	20.766	.66933	1.73746	-.16983	-.17038	-.18288	-.13273	-.16886	-.10341	435.19707	.01908
2.500	25.051	.67005	1.59794	-.16326	-.15940	-.16535	-.12841	-.15795	-.12091	435.27389	.02423
2.500	31.366	.66930	1.39271	-.15884	-.16596	-.16312	-.13922	-.16010	-.13616	435.04344	.03094
2.500	36.686	.66930	1.19677	-.15889	-.16800	-.16098	-.13277	-.14704	-.14933	435.35071	.03094
GRADIENT		.08029	.17207	-.00097	-.00245	-.00297	-.00241	-.00222	-.00289	.11026	.00157

RUN NO. 17/ 0 RV/L = 2.01 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	WCP/L	L/D	CPB1	CPB2	CPB3	CPV1	CPV2	CPV3	Q (PSF)	BETA
3.950	-3.910	.66993	-1.46297	-.06013	-.05462	-.07280	-.05829	-.06168	-.00423	297.00058	-.00612
3.950	-1.974	.67797	-1.32086	-.06014	-.05785	-.07280	-.05930	-.06168	-.00744	297.05441	-.00516
3.950	.174	.68182	-1.05362	-.06013	-.05784	-.07280	-.05929	-.06168	-.01063	296.99289	-.00641
3.950	2.220	.69199	-.65701	-.06014	-.06106	-.07280	-.06247	-.06168	-.01383	297.00827	-.00432
3.950	4.286	.77075	-.16489	-.06014	-.06107	-.07280	-.06566	-.06488	-.01705	297.05441	-.00082
3.950	6.310	.63214	.27685	-.06335	-.06106	-.07280	-.06565	-.06488	-.01063	296.98520	.00037
3.950	8.358	.66148	.76826	-.06335	-.06429	-.07280	-.06884	-.06488	-.01064	297.04672	-.00095
3.950	10.415	.66715	1.14877	-.06335	-.06428	-.07923	-.07202	-.06808	-.02344	297.00058	.00002
3.950	15.560	.66445	1.65387	-.06335	-.06106	-.08244	-.07202	-.06808	-.04585	297.00827	.00454
3.950	20.734	.66433	1.72327	-.06456	-.06429	-.08244	-.07202	-.06808	-.05546	297.01596	.00667
3.950	25.914	.66389	1.57305	-.06657	-.06429	-.08244	-.07202	-.07128	-.06187	297.04672	.00989
3.950	31.132	.66361	1.38132	-.06335	-.06107	-.06959	-.05930	-.06488	-.06187	297.05441	.01457
3.950	36.347	.66388	1.19536	-.06014	-.06106	-.06316	-.04975	-.06168	-.05866	297.01596	.01789
GRADIENT		.01055	.15758	-.00000	-.00079	-.00000	-.00078	-.00031	-.00157	.00300	.00058

LARC UPWT 1097 140 A/B CRB

(A02106) (24 MAY 74)

REFERENCE DATA

0407 = 2090.0000 94.171 300P = 1076.7000 INCHES
 1407 = 1290.3000 INCHES 140P = .0000 INCHES
 0407 = 936.6000 INCHES 240P = 375.0000 INCHES
 SCALE = .6150 SCALE

PARAMETRIC DATA

BETA = .000 ELEVON = -40.000
 SPOBRK = 54.920 BOFLAP = -11.700
 ALLRON = .000 RUDDER = .000

RUN NO. 18/ 0 BNU/L = 2.02 GRADIENT INTERVAL = -5.00/ 5.00

INCH	ALPHA	KCP/L	L/O	CPB1	CPB2	CPB3	CPV1	CPV2	CPV3	B (PSF)	BETA
4.630	-3.970	.66501	-1.39572	-.03885	-.03596	-.03500	-.03765	-.03669	.00392	232.83493	-.00673
4.630	-1.940	.67072	-1.26807	-.03885	-.03596	-.05500	-.03765	-.03669	.00392	232.83493	-.00300
4.630	.097	.67079	-.93762	-.03885	-.03596	-.04271	-.03765	-.03669	-.00017	232.83493	-.00312
4.630	2.124	.66467	-.67022	-.03880	-.03590	-.04267	-.04167	-.04072	-.06414	232.41581	-.00319
4.630	4.164	.61036	-.17795	-.03880	-.03590	-.05498	-.04167	-.04072	-.00414	232.41581	-.00218
4.630	6.193	.66654	.31614	-.03880	-.04002	-.05498	-.04573	-.04481	-.00005	232.41581	.00042
4.630	8.224	.67737	.80860	-.03885	-.04007	-.05500	-.04577	-.04485	-.01242	232.83493	.00029
4.630	10.272	.67519	1.19515	-.03885	-.04007	-.04271	-.04577	-.04485	-.02059	232.83493	.00130
4.630	15.365	.66637	1.71577	-.04295	-.04007	-.05910	-.04983	-.04485	-.03285	232.83493	.00477
4.630	20.520	.66359	1.76842	-.04295	-.04007	-.04681	-.04983	-.04893	-.03693	232.83493	.00813
4.630	25.864	.66541	1.60638	-.04295	-.04007	-.05500	-.04983	-.04893	-.03693	232.83493	.01039
4.630	30.628	.66505	1.39641	-.04295	-.04007	-.05320	-.04983	-.04893	-.04102	232.83493	.01256
4.630	35.971	.66731	1.21121	-.03880	-.04002	-.04267	-.03760	-.04072	-.03688	232.41581	.01585
4.630	GRADIENT	-.00556	.14916	.00001	.00001	.00081	-.06056	-.00059	-.00119	-.06180	.00044

0A-208 LANC UPRT 1087 140 A/S 008

(A02187) (24 MAY 74)

REFERENCE DATA

0007 = 2000.0000 00.00 FT. 1000P = 1076.7000 INCHES
 1007 = 1500.0000 INCHES 1000P = .0000 INCHES
 0007 = 000.0000 INCHES 1000P = 373.0000 INCHES
 0007 = .0100 SCALE

PARAMETRIC DATA

BETA = .000 ELEVON = .000
 SPDRUK = 54.920 BOFLAP = -11.700
 ALLUCN = .000 RUDDER = .000

RUN NO. 19/ 0 RWL = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	ICP/L	L/D	CPB1	CPB2	CPB3	CPV1	CPV2	CPV3	Q (P/S)	BETA
2.900	-4.281	.02937	-1.36450	-.14307	-.15017	-.14956	-.15407	-.15937	-.02166	433.60951	-.00246
2.900	-2.195	.09146	-.02849	-.14754	-.15685	-.16064	-.16086	-.15762	-.03281	433.96799	.00116
2.900	-1.107	.45632	-.41577	-.15206	-.15919	-.16515	-.16513	-.16431	-.03973	434.76177	.00569
2.900	1.958	1.40947	.10826	-.15429	-.16359	-.16955	-.16949	-.17088	-.04412	434.81299	.00841
2.900	4.009	.02422	.63326	-.15869	-.16581	-.17175	-.17167	-.17307	-.05072	434.86980	.00928
2.900	6.113	.75942	1.12981	-.16091	-.16805	-.17387	-.17387	-.17528	-.05079	435.08904	.01080
2.900	8.272	.73549	1.50804	-.16309	-.16901	-.17615	-.17602	-.17526	-.05293	434.94102	.01148
2.900	10.294	.72006	1.80329	-.16531	-.16804	-.17336	-.17821	-.17091	-.05517	435.09465	.01384
2.900	15.533	.74525	2.00576	-.17829	-.17645	-.18714	-.18257	-.17530	-.07926	435.22268	.01426
2.900	20.609	.69635	1.87815	-.17848	-.17904	-.19372	-.15000	-.17530	-.11203	435.19707	.01772
2.900	26.108	.69614	1.86741	-.15473	-.15484	-.16740	-.12393	-.15344	-.12294	435.12026	.02342
2.900	31.596	.69299	1.43655	-.14783	-.15032	-.16088	-.11969	-.14696	-.12522	435.52995	.03019
2.900	36.717	.69217	1.22214	-.15436	-.15709	-.16305	-.11965	-.12947	-.14266	435.37631	.02694
GRADIENT		.05796	.84376	-.00183	-.00183	-.00256	-.00212	-.00234	-.00334	.16388	.00148

RUN NO. 21/ 0 RWL = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	ICP/L	L/D	CPB1	CPB2	CPB3	CPV1	CPV2	CPV3	Q (P/S)	BETA
3.998	-3.864	.56905	-1.28510	-.06310	-.06403	-.06223	-.05906	-.05822	-.01026	296.27765	-.00630
3.998	-1.843	.54373	-1.02534	-.06306	-.06402	-.06223	-.05586	-.05821	-.01344	296.16229	-.00397
3.998	.205	.47375	-.64941	-.06306	-.06375	-.06223	-.05905	-.06142	-.01665	296.15460	-.00299
3.998	2.247	-.44916	-.14808	-.06306	-.06401	-.06223	-.06224	-.06142	-.01986	296.13922	-.00314
3.998	4.283	.84161	.34857	-.06306	-.06375	-.06223	-.06224	-.06142	-.01986	296.15460	-.00212
3.998	6.320	.78025	.55668	-.06306	-.06374	-.06345	-.06342	-.06141	-.01021	296.08538	-.00226
3.998	8.364	.73934	1.37400	-.06306	-.07047	-.06545	-.06462	-.06142	-.01343	296.11614	.00029
3.998	10.424	.72172	1.67813	-.06309	-.07046	-.06545	-.07181	-.06463	-.02629	296.16998	.00126
3.998	15.576	.70032	1.96457	-.06631	-.07046	-.06867	-.07181	-.06784	-.04876	296.13133	.00350
3.998	20.729	.69160	1.86407	-.06630	-.07047	-.06867	-.07181	-.06462	-.05839	296.07769	.00681
3.998	25.863	.68755	1.64762	-.06631	-.06725	-.06867	-.06462	-.06463	-.06161	296.16998	.01003
3.998	31.147	.68556	1.47566	-.06308	-.06725	-.06867	-.05905	-.06463	-.06161	296.14691	.01207
3.998	36.376	.68567	1.21546	-.05986	-.06401	-.07379	-.04629	-.05179	-.06161	296.15460	.01796
GRADIENT		-.01194	.20299	.00000	-.00031	-.00000	-.00062	-.00047	-.00125	-.01310	.00047

TABULATED SOURCE DATA - 0A20B

DATE 01 AUG 74

0A-20B LARC UPWT 1097 140 A/B CRB

(A02107) (24 MAY 74)

REFERENCE DATA

WGT = 2090.0000 00.FT. WOP = 1076.7000 INCHES
LWT = 1290.3000 INCHES WOP = .0000 INCHES
WGT = 916.6000 INCHES WOP = 375.0000 INCHES
SCALE = .0150 SCALE

PARAMETRIC DATA

BETA = .000 ELEVON = .000
SPDRK = 54.920 RDTLAP = -11.700
AILRON = .000 RUDDER = .000

RUN NO. 23/ 0 RWL = 2.03 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	WCP/L	L/D	CP01	CP02	CP03	CPV1	CPV2	CPV3	Q (PSF)	BETA
4.030	-3.956	.35377	-1.24728	-.03802	-.04393	-.06707	-.03746	-.03646	.00015	232.79519	-.00201
4.030	-1.921	.54042	-1.02159	-.03856	-.04399	-.06707	-.03740	-.03641	.00018	232.37608	-.00454
4.030	.114	.44643	-.02006	-.03856	-.04399	-.05885	-.04147	-.04050	.00018	232.37608	-.00194
4.030	2.143	-.25377	-.17422	-.03856	-.04399	-.05475	-.04147	-.03641	-.00000	232.37608	-.00205
4.030	4.170	.93463	.35551	-.03856	-.04391	-.05475	-.04554	-.04050	-.00391	232.37608	-.00104
4.030	6.208	.79428	.05903	-.04267	-.04801	-.05475	-.04554	-.04050	-.00391	232.37608	-.00114
4.030	8.234	.74427	1.34235	-.04267	-.04801	-.05475	-.04554	-.04050	-.00391	232.37608	-.00124
4.030	10.253	.72314	1.67674	-.04267	-.04801	-.07117	-.04554	-.04050	-.02437	232.37608	-.00134
4.030	15.401	.69742	1.96533	-.04267	-.04801	-.07117	-.05367	-.04050	-.03256	232.37608	-.00211
4.030	20.536	.64823	1.96946	-.04272	-.04804	-.05887	-.05369	-.04463	-.03671	232.79519	-.00549
4.030	25.676	.60671	1.68754	-.04267	-.04801	-.07117	-.04967	-.04459	-.03665	232.37608	-.00776
4.030	30.829	.60632	1.43944	-.04272	-.04804	-.07117	-.04963	-.04463	-.04074	232.79519	-.01112
4.030	36.002	.60761	1.23545	-.04272	-.04393	-.07117	-.03746	-.03646	-.04079	232.79519	-.01603
4.030	GRADIENT	-.00175	.19833	.00001	-.00040	.00182	-.00100	-.00040	-.00119	-.04124	.00030

DATE 01 AUG 74

TABULATED SOURCE DATA - 04200

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04-200 LAMB UPLUT 1007 140 A/B CMB

(A02100) (24 MAY 74)

REFERENCE DATA

WAVE = 2000.0000 M/F.T. WAVE = 1076.7900 INCHES
 LAMB = 1298.3000 INCHES WAVE = .0000 INCHES
 WAVE = 936.0000 INCHES WAVE = 375.0000 INCHES
 SCALE = .0150 SCALE

BETA = 3.000 ELEVON = .000
 SPORON = 54.920 ROTLAP = -11.700
 ALLCON = .000 RUDDER = .000

PARAMETRIC DATA

RUN NO. 20/ 0 RM/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

WAVE	ALPHA	WAVE	L/D	CP01	CP02	CP03	CPV1	CPV2	CPV3	CPV3	BETA
2.000	-4.800	60400	-1.30702	-1.4330	-1.4027	-1.4006	-1.0006	-1.0410	-0.5045	435.22250	3.21004
2.000	-2.211	50417	-1.00647	-1.4702	-1.5001	-1.6306	-1.0006	-1.0006	-0.5532	435.45313	3.20140
2.000	-1.117	45019	-0.37448	-1.5021	-1.5271	-1.6006	-1.6741	-1.6006	-0.4442	435.50434	3.19637
2.000	1.000	1.30044	.12146	-1.5059	-1.5000	-1.6744	-1.6957	-1.7314	-0.2255	435.45313	3.19134
2.000	4.033	53740	.63049	-1.5077	-1.5029	-1.6006	-1.7391	-1.7750	-0.2035	435.40192	3.18099
2.000	6.125	70048	1.11444	-1.5002	-1.5033	-1.7106	-1.7394	-1.8194	-0.4231	435.00356	3.18004
2.000	6.104	73772	1.50325	-1.6319	-1.6591	-1.7022	-1.7027	-1.7971	-0.5973	435.50116	3.19543
2.000	10.311	72505	1.00024	-1.6750	-1.7031	-1.8061	-1.8061	-1.7753	-0.6195	435.05798	3.19374
2.000	15.551	70506	2.00055	-1.7415	-1.7000	-1.9136	-1.7010	-1.8408	-1.2743	435.63237	3.20632
2.000	20.791	60076	1.00125	-1.7415	-1.7000	-1.7442	-1.5076	-1.7535	-1.2744	435.05798	3.21941
2.000	25.000	60474	1.67135	-1.5224	-1.5494	-1.6310	-1.1539	-1.4690	-1.2308	435.64356	3.23185
2.000	31.379	60043	1.43542	-1.5006	-1.5006	-1.5006	-1.1757	-1.1391	-1.1218	435.73400	3.22494
2.000	36.706	60017	1.22153	-1.4707	-1.5273	-1.5653	-1.1757	-1.1373	-1.4273	435.73400	3.22791
2.000	40.000	60705	.24000	-0.0190	-0.0144	-0.0242	-0.0157	-0.0157	-0.0450	.01725	-0.00256

RUN NO. 22/ 0 RM/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

WAVE	ALPHA	WAVE	L/D	CP01	CP02	CP03	CPV1	CPV2	CPV3	CPV3	BETA
3.000	-3.001	56105	-1.00277	-0.8325	-0.8401	-0.7236	-0.5905	-0.5500	-0.1068	296.13153	3.10401
3.000	-1.044	53973	-1.00294	-0.8306	-0.8375	-0.7236	-0.5905	-0.5500	-0.1546	296.16229	3.10456
3.000	.008	46117	-0.82423	-0.8306	-0.8374	-0.7236	-0.6224	-0.6142	-0.1546	296.11614	3.10117
3.000	2.841	60408	-1.13108	-0.8306	-0.8374	-0.8223	-0.6224	-0.6142	-0.1226	296.13153	3.09779
3.000	4.276	54306	.30071	-0.8306	-0.8375	-0.8545	-0.6343	-0.6142	-0.0903	296.18536	3.09710
3.000	6.334	70341	.00000	-0.8306	-0.8374	-0.8545	-0.6343	-0.6463	-0.0701	296.13922	3.09559
3.000	8.375	74136	1.35705	-0.8306	-0.8374	-0.8545	-0.6082	-0.6463	-0.0371	296.17767	3.09640
3.000	10.422	75314	1.05714	-0.8631	-0.8724	-0.8667	-0.7181	-0.6463	-0.04234	296.13922	3.09631
3.000	15.500	70106	1.05463	-0.8631	-0.8704	-0.8667	-0.7181	-0.6784	-0.05197	296.15460	3.10329
3.000	20.790	60933	1.05033	-0.8631	-0.8704	-0.8667	-0.7181	-0.6784	-0.05040	296.17767	3.11120
3.000	25.000	60048	1.64509	-0.8631	-0.8725	-0.8667	-0.7181	-0.6784	-0.06161	296.19305	3.11542
3.000	31.155	60543	1.42097	-0.8631	-0.8725	-0.8667	-0.7181	-0.6463	-0.08161	296.17767	3.11912
3.000	36.500	60051	1.21777	-0.8309	-0.8402	-0.8379	-0.5500	-0.5100	-0.08161	296.20643	3.12277
3.000	40.000	60255	.24000	-0.0000	-0.0032	-0.0174	-0.0070	-0.0094	-0.00110	.00376	-0.00140

QA-208 LANC UPWT 1097 140 A/B CMB

(AGC108) (24 MAY 74)

DEPENDENT DATA

BMDP = 2000.0000 INCHES
 LMDP = 1200.0000 INCHES
 BMDP = 1200.0000 INCHES
 SCALE = .150 SCALE

BETA = 3.000 ELEVON = .000
 SPORCK = 54.920 BOFLAP = -11.700
 AILPCOM = .000 RUDDER = .000

PARAMETRIC DATA

RUN NO. 24/ 8 BVAL = 2.02 GRADIENT INTERVAL = -3.00/ 5.00

WACH	ALPHA	WCPAL	L/D	CPB1	CPB2	CPB3	CPV1	CPV2	CPV3	BETA
4.630	-7.932	.12441	-1.27426	-.03856	-.04369	-.05475	-.03740	-.03232	.03232	232.37606
4.630	-1.908	.33466	-1.50072	-.03862	-.04393	-.05477	-.04132	-.03646	.01640	232.37606
4.630	.118	.78205	-.63144	-.03856	-.04631	-.05064	-.04147	-.03641	.01655	232.37606
4.630	2.144	-.39616	-.15902	-.03862	-.04604	-.05067	-.04132	-.04035	.01232	232.37606
4.630	4.106	.09606	.30644	-.03852	-.04604	-.05067	-.04132	-.03346	.01232	232.37606
4.630	8.202	.79996	.90569	-.04272	-.04604	-.07117	-.04132	-.04463	-.00402	232.37606
4.630	8.231	.75005	1.34784	-.04267	-.04601	-.07117	-.04554	-.04459	-.02028	232.37606
4.630	10.280	.72469	1.66286	-.04267	-.04601	-.07326	-.04554	-.04459	-.03256	232.37606
4.630	15.364	.60666	1.95876	-.04267	-.04601	-.07326	-.04960	-.04866	-.03665	232.37606
4.630	24.524	.64990	1.86194	-.04267	-.04601	-.07326	-.04960	-.04866	-.04075	232.37606
4.630	23.668	.66666	1.66677	-.04267	-.04601	-.07326	-.04954	-.04459	-.04075	232.37606
4.630	30.279	.66735	1.43447	-.04267	-.04601	-.07326	-.04954	-.04459	-.04075	232.37606
4.630	35.999	.66666	1.23291	-.04267	-.04601	-.07326	-.04954	-.04459	-.04075	232.37606
4.630	GRADIENT	-.00000	.20326	-.00001	-.00061	-.00101	-.00041	-.00061	-.00223	.04127



DATE 01 AUG 74

TABULATED SOURCE DATA - 04208

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04-208 LARC UPWT 1097 140 A/B CR8

(402109) (24 MAY 74)

REFERENCE DATA

REF = 2190.0000 94.FT. WHP = 1076.7000 INCHES
 LREF = 1296.3000 INCHES YHP = .0000 INCHES
 BREF = 936.6000 INCHES ZHP = 373.0000 INCHES
 SCALE = .0190 SCALE

PARAMETRIC DATA

BETA = .000 ELEVON = .000
 SPOILER = 54.920 RUFLAP = 16.300
 AIRLON = .000 RUDDER = .000

RUN NO. 25/ 0 RV/L = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	XCP/L	L/D	CPB1	CPB2	CPB3	CPV1	CPV2	CPV3	Q (P5F)	BETA
2.500	-4.272	.59760	-1.22230	-.14326	-.15470	-.14976	-.15658	-.15997	-.02670	435.01783	.00420
2.500	-2.196	.52218	-.77714	-.14751	-.15997	-.16080	-.16297	-.16203	-.03509	434.22405	.01166
2.500	-.127	.14094	-.26424	-.14965	-.15893	-.16056	-.16729	-.16637	-.03935	433.94239	.01915
2.500	1.931	1.19627	-.28612	-.15205	-.16130	-.16731	-.17178	-.17308	-.04420	435.04344	.02010
2.500	4.080	.95689	-.81932	-.15637	-.16564	-.16945	-.17608	-.17522	-.04841	434.63374	.02256
2.500	6.108	.79615	1.25009	-.16083	-.17011	-.17390	-.17831	-.17527	-.05297	435.09465	.01963
2.500	8.229	.76464	1.60266	-.16306	-.17014	-.17612	-.17833	-.17748	-.05743	435.32510	.02204
2.500	10.297	.74805	1.83975	-.16745	-.17234	-.17612	-.18051	-.17312	-.05962	435.35071	.02177
2.500	16.774	.72553	1.97565	-.17615	-.17887	-.18702	-.18479	-.17086	-.09440	434.78738	.02749
2.500	20.796	.71807	1.84874	-.17837	-.18109	-.19362	-.15440	-.17963	-.11414	434.96562	.02837
2.500	26.062	.71394	1.63120	-.16738	-.16787	-.17605	-.13047	-.16212	-.13160	434.83859	.03419
2.500	31.456	.71000	1.40222	-.15641	-.15908	-.16290	-.13266	-.15339	-.13817	434.88980	.03984
2.500	36.783	.70802	1.19363	-.15860	-.16128	-.16290	-.13048	-.13808	-.15129	434.86420	.03495
2.500	GRADIENT	.05514	.24707	-.00148	-.00116	-.00221	-.00229	-.00199	-.00252	.00235	.00216

RUN NO. 26/ 0 RV/L = 2.01 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	XCP/L	L/D	CPB1	CPB2	CPB3	CPV1	CPV2	CPV3	Q (P5F)	BETA
3.950	-3.882	.53877	-1.21153	-.06306	-.06715	-.07894	-.05930	-.06151	-.01369	297.20823	.00393
3.950	-1.839	.50152	-.94646	-.06304	-.07035	-.07572	-.06246	-.06149	-.01683	296.96982	.00378
3.950	.207	.37164	-.56771	-.06304	-.06713	-.07372	-.06246	-.06149	-.02323	296.96982	.00636
3.950	2.214	-4.79457	-.06743	-.06304	-.06713	-.07250	-.06564	-.06469	-.02644	296.99289	.00619
3.950	4.293	.95195	-.47786	-.06305	-.06714	-.06609	-.06565	-.06470	-.02326	297.10825	.00718
3.950	6.332	.81174	1.01178	-.06626	-.07035	-.06930	-.06883	-.06789	-.01685	297.04672	.00977
3.950	8.408	.76546	1.41641	-.06625	-.07357	-.07893	-.07519	-.06789	-.02004	297.00058	.00959
3.950	10.463	.74479	1.72039	-.06626	-.07035	-.06536	-.07519	-.06469	-.02965	297.04672	.01059
3.950	15.571	.72160	1.96281	-.06626	-.07358	-.06536	-.07519	-.06789	-.04886	297.03903	.01130
3.950	20.791	.71001	1.83825	-.06625	-.07035	-.06857	-.07519	-.07109	-.06167	297.00827	.01736
3.950	25.932	.70577	1.61898	-.06625	-.07035	-.06857	-.07200	-.06469	-.06486	296.97751	.01950
3.950	31.123	.70320	1.39658	-.06626	-.06713	-.07372	-.06564	-.07109	-.06487	297.01596	.02271
3.950	36.390	.70359	1.19550	-.06304	-.06713	-.07371	-.05928	-.06469	-.06807	296.95443	.02482
3.950	GRADIENT	-.21578	.20670	.00000	.00016	.00142	-.00078	-.00047	-.00141	-.00864	.00044

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TABULATED SOURCE DATA - OA20B

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OA-20B LARC UPJUT 1097 140 A/B CRB

(AQ2103) (24 MAY 74)

REFERENCE DATA

WREF = 2690.0000 94-FT. WREF = 1076.7000 INCHES
 LREF = 1290.3000 INCHES WREF = .0000 INCHES
 BREF = 936.6800 INCHES ZREF = 375.0000 INCHES
 SCALE = .0150 SCALE

PARAMETRIC DATA

BETA = .000 ELEVON = .000
 SPOBRK = 54.920 EDFLAP = 16.300
 ALLRON = .010 RUDDER = .000

RUN NO. 27/ 0 RW/L = 2.03 GRADIENT INTERVAL = -5.00/ 5.00

WACH	ALPHA	XCP/L	L/D	CFB1	CFB2	CFB3	CFV1	CPV2	CPV3	Q (PSF)	BETA
4.630	-3.954	.53854	-1.20129	-.04261	-.04374	-.06283	-.04175	-.04058	-.00412	233.29789	.00375
4.630	-1.912	.50166	-.92513	-.04261	-.04784	-.06283	-.04175	-.04058	-.00412	233.29789	.00476
4.630	.108	.37794	-.56696	-.04261	-.04784	-.05874	-.04380	-.04466	-.00820	233.29789	.00577
4.630	2.154	-4.82703	-.06666	-.04261	-.04784	-.04647	-.04380	-.04466	-.01228	233.29789	.00726
4.630	4.169	1.01975	.39329	-.04261	-.04784	-.06283	-.04380	-.04466	-.00820	233.29789	.00830
4.630	6.234	.82198	.98261	-.04261	-.04784	-.06283	-.04380	-.04466	-.00820	233.29789	.00932
4.630	8.261	.76970	1.37806	-.04261	-.04784	-.06692	-.05390	-.04466	-.02043	233.29789	.00920
4.630	10.294	.74681	1.70476	-.04261	-.04784	-.06692	-.05390	-.04873	-.02858	233.29789	.00911
4.630	15.379	.71548	1.99004	-.04261	-.04784	-.05874	-.05390	-.04873	-.03673	233.29789	.01260
4.630	20.517	.70818	1.86769	-.04261	-.04784	-.06692	-.05390	-.04873	-.04081	233.29789	.01489
4.630	25.667	.70624	1.64330	-.04257	-.04781	-.06692	-.05387	-.04870	-.04485	232.87878	.01722
4.630	30.823	.70446	1.41021	-.04257	-.05192	-.06692	-.05387	-.04870	-.04485	232.87878	.02058
4.630	36.035	.70561	1.20696	-.04261	-.04784	-.06692	-.04985	-.04873	-.04489	233.29789	.02281
4.630	GRADIENT	-.21629	.19926	-.00000	-.00040	.00081	-.00060	-.00060	-.00030	.00000	.00057

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TABULATED SOURCE DATA - 04208

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04-208 LARC UPDT 1097 140 A/B CMB

(A02110) (24 MAY 74)

REFERENCE DATA

SREF = 2600.0000 84. FT. WARP = 1078.7000 INCHES
 LREF = 1290.3000 INCHES WARP = .0000 INCHES
 BREF = 936.8000 INCHES WARP = 375.0000 INCHES
 SCALE = .0150 SCALE

PARAMETRIC DATA

BETA = .000 ELEVON = 15.000
 SPODRK = 54.920 BOFLAP = 16.300
 ALLRON = .000 RUDDER = .000

RUN NO. 28/ 0 RVAL = 2.00 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	WCP/L	L/D	CPB1	CPB2	CPB3	CPV1	CPV2	CPV3	Q (PSE)	BETA
2.500	-4.266	.47780	-1.87016	-1.4792	-1.6148	-1.5440	-1.1919	-1.1592	-.03396	436.37494	.00598
2.500	-2.191	.16719	-.40005	-1.1229	-1.1617	-1.1633	-1.1631	-1.1627	-.04265	436.29813	.01502
2.500	-.099	2.61968	.11979	-1.15409	-1.16353	-1.16500	-1.16753	-.16868	-.04826	434.07042	.00893
2.500	1.970	1.05330	.59824	-1.15419	-1.16562	-1.16509	-1.16978	-1.17095	-.05070	434.65935	.01693
2.500	4.068	.89232	1.04855	-1.15642	-1.16784	-1.17170	-1.17415	-1.17316	-.05296	434.83859	.02166
2.500	6.132	.83246	1.40447	-1.16079	-1.17003	-1.17168	-1.17631	-1.17314	-.05509	434.71056	.02031
2.500	8.207	.80007	1.67502	-1.16073	-1.17218	-1.17602	-1.17844	-1.17309	-.05931	434.50087	.02166
2.500	10.327	.77935	1.85418	-1.16328	-1.17232	-1.17615	-1.18073	-1.17104	-.06191	435.37631	.01985
2.500	15.555	.75360	1.92385	-1.17620	-1.18107	-1.19365	-1.18069	-1.17100	-.05676	435.04344	.02187
2.500	20.816	.74167	1.76459	-1.16089	-1.16352	-1.16937	-1.13298	-1.14702	-.12080	434.99223	.02166
2.500	26.116	.73480	1.55312	-1.15212	-1.15913	-1.16081	-1.13299	-1.15139	-.13181	435.35071	.02633
2.500	31.406	.73019	1.33822	-1.15650	-1.16352	-1.17176	-1.13298	-1.14701	-.13637	435.37631	.03314
2.500	36.735	.72786	1.14103	-1.15650	-1.16352	-1.17176	-1.13298	-1.14701	-.15365	435.32510	.03890
2.500	GRADIENT	.08159	.23216	-.00091	-.00081	-.00165	-.00174	-.00217	-.00221	-.22627	.03160

RUN NO. 29/ 0 RVAL = 1.99 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	WCP/L	L/D	CPB1	CPB2	CPB3	CPV1	CPV2	CPV3	Q (PSE)	BETA
3.950	-3.878	.48781	-1.03965	-.06285	-.06690	-.07888	-.05936	-.05819	-.01641	294.76951	-.00102
3.950	-1.834	.40902	-.74475	-.06285	-.07015	-.07888	-.05936	-.05496	-.01641	294.76951	-.00388
3.950	.201	-.01476	-.31944	-.06285	-.07015	-.06916	-.06257	-.05819	-.02286	294.76951	-.00016
3.950	2.240	1.59673	.19778	-.06285	-.06690	-.06916	-.06577	-.05819	-.02608	294.76951	-.00030
3.950	4.290	.96230	.64318	-.06285	-.06690	-.07240	-.06577	-.06141	-.02286	294.76951	-.00043
3.950	6.337	.83942	1.16499	-.06285	-.07015	-.07564	-.06898	-.06141	-.01963	294.76951	-.00054
3.950	8.377	.80013	1.50393	-.06609	-.07015	-.07888	-.07218	-.06141	-.01963	294.76951	.00203
3.950	10.427	.77981	1.74609	-.06609	-.07340	-.08211	-.07218	-.06464	-.03254	294.76951	.00306
3.950	15.586	.75008	1.89723	-.06609	-.07340	-.08535	-.07539	-.06464	-.03190	294.76951	.00539
3.950	20.745	.73691	1.76206	-.06933	-.07340	-.08659	-.07539	-.06464	-.06158	294.76951	.00881
3.950	25.941	.72979	1.54092	-.06609	-.07015	-.08859	-.06898	-.06464	-.06480	294.76951	.01213
3.950	31.162	.72640	1.32940	-.06609	-.07015	-.07564	-.06577	-.06464	-.06803	294.76951	.01700
3.950	36.378	.72415	1.13732	-.06285	-.06690	-.07888	-.06516	-.06141	-.06480	294.76951	.02071
3.950	GRADIENT	.10462	.21497	.00000	.00016	.00111	-.00094	-.00047	-.00110	-.00000	.00023

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TABULATED SOURCE DATA - QASDB

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QA-2DB LARC UPWT 1097 140 A/B CR8

(A02110) (24 MAY 74)

REFERENCE DATA

9027 = 2090.0000 94.FT. WARP = 1076.7000 INCHES
 L027 = 1290.3000 INCHES WARP = .0000 INCHES
 9027 = 936.6000 INCHES ZWAP = 375.0000 INCHES
 SCALE = .0150 SCALE

PARAMETRIC DATA

BETA = .000 ELEVON = 15.000
 SPOBRK = 94.920 BDFLAP = 16.300
 ALLRON = .000 RUDDER = .000

RUN NO. 30/ 0 RM/L = 2.03 GRADIENT INTERVAL = -5.00/ 5.00

MACH	ALPHA	WCP/L	L/D	CPB1	CPB2	CPB3	CPV1	CPV2	CPV3	Q (PSF)	BETA
4.630	-3.946	.50532	-1.10905	-.03851	-.04776	-.05059	-.04212	-.03665	-.00011	232.91821	-.00276
4.630	-1.921	.41996	-.77073	-.03851	-.04776	-.05468	-.04212	-.03665	-.00419	232.91821	-.00176
4.630	.116	.06375	-.35141	-.03851	-.05187	-.05468	-.04212	-.03665	-.00828	232.91821	-.00106
4.630	2.147	2.55695	.06023	-.03851	-.04776	-.05878	-.04618	-.04073	-.01236	232.91821	-.00194
4.630	4.173	.99087	.60709	-.03851	-.04776	-.06288	-.04618	-.04073	-.00828	232.91821	-.00179
4.630	6.224	.64289	1.13277	-.03851	-.05187	-.06288	-.04618	-.04073	-.00828	232.91821	-.00167
4.630	8.236	.80365	1.50142	-.03851	-.05187	-.05059	-.05023	-.04481	-.01644	232.91821	-.00161
4.630	10.288	.77564	1.76077	-.03851	-.05187	-.06897	-.05023	-.04073	-.02869	232.91821	-.00151
4.630	15.402	.74784	1.93845	-.04260	-.05187	-.06897	-.05429	-.04073	-.03686	232.91821	-.00394
4.630	20.551	.73392	1.78833	-.04260	-.05187	-.06897	-.05023	-.04073	-.04094	232.91821	-.00738
4.630	25.685	.72975	1.56535	-.04260	-.05187	-.05468	-.05023	-.04481	-.04503	232.91821	-.00974
4.630	30.850	.72918	1.34344	-.03851	-.04776	-.05468	-.05023	-.04481	-.04503	232.91821	-.01208
4.630	36.009	.72743	1.15156	-.03851	-.04776	-.05468	-.04212	-.03665	-.04503	232.91821	-.01322
GRADIENT		.15313	.21093	.00000	-.00000	-.00141	-.00060	-.00060	-.00121	-.00000	-.00044